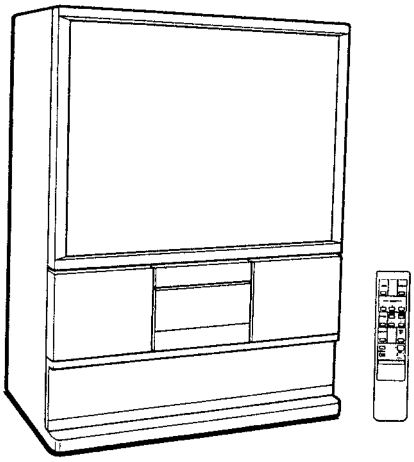
KPR-5300M
RM-819

SERVICE MANUAL

6729
E Model
Chassis No. SCC-E43A-A



MODELS OF THE SAME SERIES	
KPR-5300M	

SPECIFICATIONS

Color System	PAL, SECAM, NTSC$_{4.43}$, NTSC$_{3.58}$
Structure	Screen and projector, rear projection type
Projection system	3 picture tubes, 3 lenses, horizontal in-line system
Picture tube	5.5 inch high-brightness monochrome tubes, with optical coupling and cooling system
Projection lenses	High performance, large diameter hybrid lens F 1.0
Screen material	Acrylic plastic, Fresnel, lenticular type
Resolution	700 lines
Screen brightness	320 foot-Lamberts
Optimal viewing area	Within approx. 80° from center
Inputs	VIDEO-1, 2, VIDEO IN (VIDEO 2) (phono jacks) Video: 1 Vp-p, 75 ohms, unbalanced, sync negative Audio: 0.5 Vrms (standard level, 47 kiloohms) VIDEO-1 S VIDEO (4-pin mini DIN) Y: 1 Vp-p, 75 ohms, unbalanced, sync negative C: 0.286 Vp-p, 75 ohms VIDEO-3 (21-pin connector) CENELEC standard CONTROL S (mini jack) 5 Vp-p
Outputs	MONITOR OUT (phono jacks) Video: 1 Vp-p, 75 ohms unbalanced, sync negative Audio: 0.5 Vrms (standard level, 47 kiloohms) CONTROL S (mini jack) 5 Vp-p AUDIO OUTPUT (phono jacks) 0.7 Vrms (variable) (standard level, 47 kiloohms)
Speaker	Two-way coaxial speaker system Woofer 20 cm (8 inches) dia. Tweeter 7.6 cm (3 inches) dia.

— Continued on next page —

COLOR REAR VIDEO PROJECTOR

SONY®

MICROFILM

6729

Power Requirements	120/240 V AC, 50/60 Hz
Power consumption	262 W
Dimensions (h/w/d)	1545 x 1174 x 905 mm
	(61½ x 46¼ x 28¾ in.)
Weight	128 kg. (281⅝ lbs.)
Supplied accessories	RM-819 Remote Commander
	R6 batteries (2)
	Power cord plug adaptor (1)
Optional accessories	VMC-810S/820S
	VMC-920MS
	VMC-2121CE
	RK-G69
	RK-74A
	YC-15V/30V

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING !!

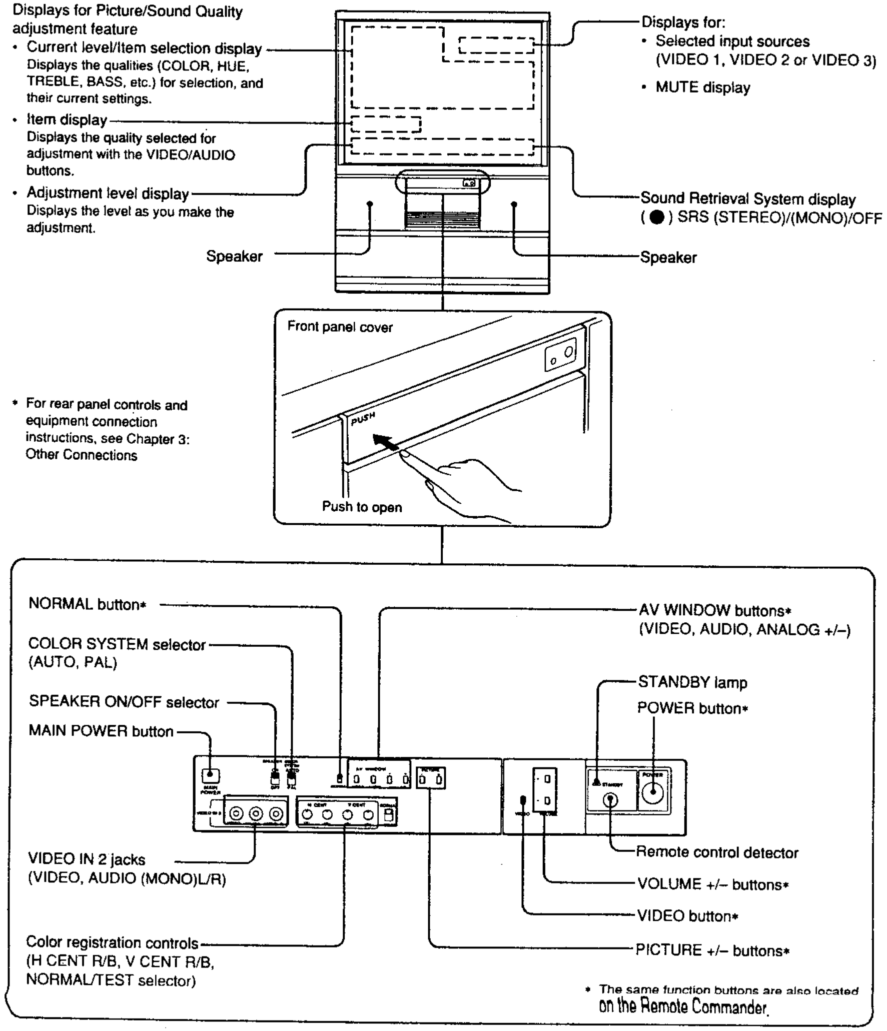
COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

SECTION 1
GENERAL

1-1. LOCATION OF CONTROLS

Front* — Screen displays and control panel

For details, refer to the pages indicated by the numbered black circles ●.

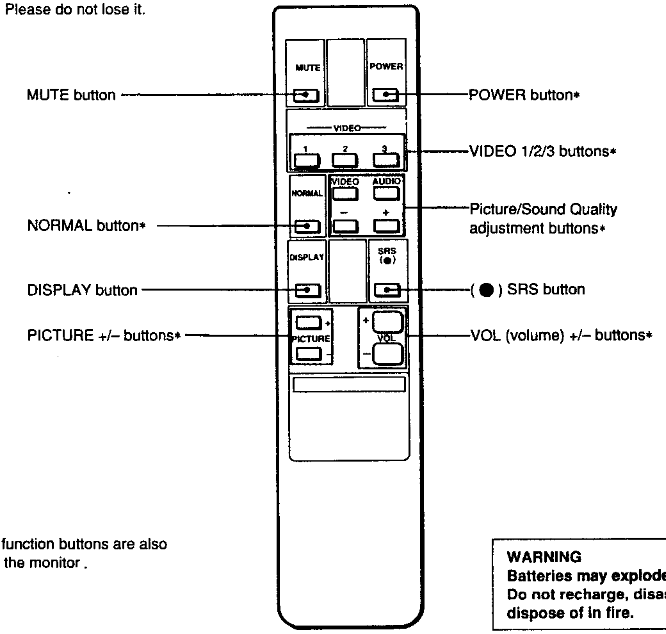

Displays for Picture/Sound Quality adjustment feature
• Current level/Item selection display
Displays the qualities (COLOR, HUE, TREBLE, BASS, etc.) for selection, and their current settings.
• Item display
Displays the quality selected for adjustment with the VIDEO/AUDIO buttons.
• Adjustment level display
Displays the level as you make the adjustment.
Speaker
Displays for:
• Selected input sources (VIDEO 1, VIDEO 2 or VIDEO 3)
• MUTE display
Sound Retrieval System display (●) SRS (STEREO)/(MONO)/OFF
Speaker
Front panel cover
PUSH
Push to open
NORMAL button*
COLOR SYSTEM selector (AUTO, PAL)
SPEAKER ON/OFF selector
MAIN POWER button
VIDEO IN 2 jacks (VIDEO, AUDIO (MONO)L/R)
Color registration controls (H CENT R/B, V CENT R/B, NORMAL/TEST selector)
AV WINDOW buttons* (VIDEO, AUDIO, ANALOG +/–)
STANDBY lamp
POWER button*
Remote control detector
VOLUME +/– buttons*
VIDEO button*
PICTURE +/– buttons*

* For rear panel controls and equipment connection instructions, see Chapter 3: Other Connections

* The same function buttons are also located on the Remote Commander.

Remote Commander RM-819

Most of the functions require the Remote Commander. Please do not lose it.

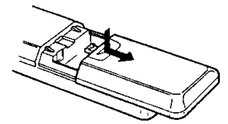

MUTE button
NORMAL button*
DISPLAY button
PICTURE +/– buttons*
POWER button*
VIDEO 1/2/3 buttons*
Picture/Sound Quality adjustment buttons*
(●) SRS button
VOL (volume) +/– buttons*
MUTE
POWER
VIDEO
1
2
3
NORMAL
VIDEO
AUDIO
DISPLAY
SRS (●)
PICTURE
VOL

* The same function buttons are also located on the monitor.

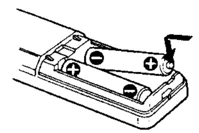
WARNING
Batteries may explode if mistreated.
Do not recharge, disassemble or dispose of in fire.

Battery Installation

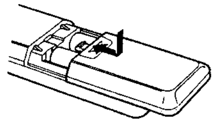
1 Push to open the lid (rear of the Remote Commander).



2 Install two size AA (R6) batteries in correct polarity.



3 Replace the lid.



Notes
- With normal operation, batteries will last up to half a year. If the commander does not operate properly, the batteries might be exhausted. Replace all with new ones.
- To avoid damage from possible battery leakage, remove the batteries when you will not be using the Remote Commander for a fairly long time.
- Be sure that there are no obstructions between the Remote Commander and the monitor.
- Operable range is limited to a 7 meter (23.5 ft.) distance and a 30° angle in each direction.
- If you use a Remote Commander that is not recommended to operate this monitor, or if you use the supplied Remote Commander to operate other equipment, the equipment may not operate properly.

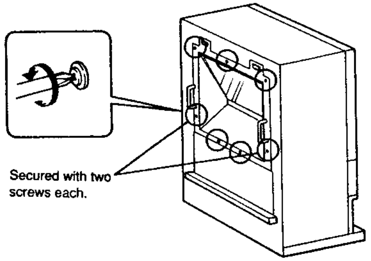
1-2. MOUNTING THE MIRROR COVER

The mirror cover is turned over and installed inside the cabinet for transporting.
Before using your monitor, please remount the mirror cover as follows.

Notes

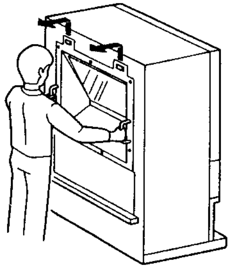
- Before mounting, turn off the power and unplug the power cord from the AC wall outlet.
- Handle the mirror cover with care as the mirror is mounted inside.
- Do not touch the mirror surface or any parts inside the cabinet.
- Do not use the handles to carry or transport the set. The handles are designed only to turn the mirror cover over.

1 Remove the nine black screws.

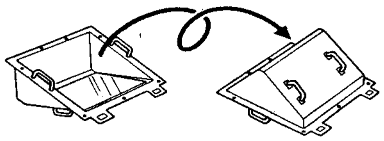


Secured with two screws each.

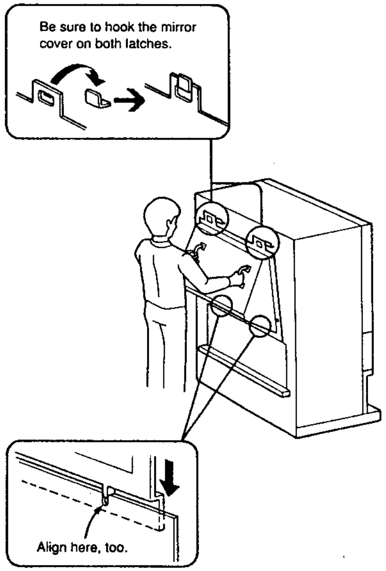
2 Slide the mirror cover up and out from the latches.



3 Turn the mirror cover over.



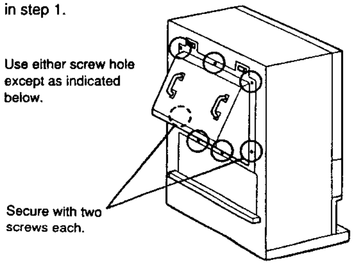
4 Hold the mirror cover by its handles and remount it.



Be sure to hook the mirror cover on both latches.

Align here, too.

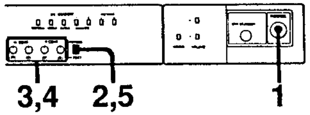
5 Secure the mirror cover by replacing the nine black screws to where you removed them from in step 1.

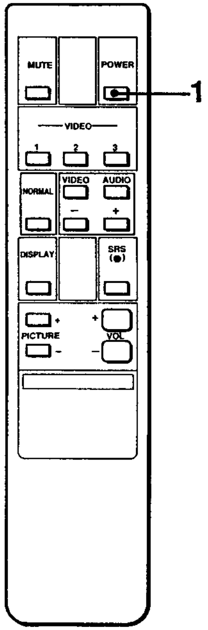


Use either screw hole except as indicated below.

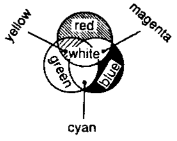
Secure with two screws each.

1-3. ADJUSTING COLOR REGISTRATION



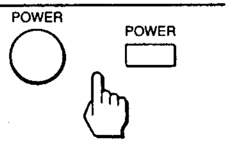


Mixture of Primary Colors

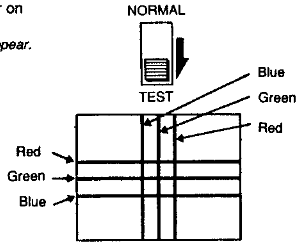


When the red, green and blue lines do not converge (the cross is not seen as white), adjust the registration. If the color difficulty still persists, contact your Sony dealer.

1 Press POWER on the monitor or Remote Commander to turn on the monitor.



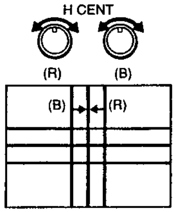
2 Set the NORMAL/TEST selector on the front panel to TEST.
A test pattern of colored lines will appear.



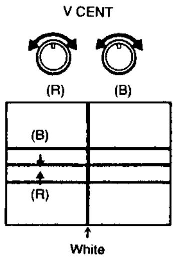
The position of the colored lines will depend on the where your monitor's registration happens to be set.

3 Adjust the H CENT (R) AND (B) controls so that the red and blue vertical lines converge with the center green line.
Turn the knobs clockwise to move right, and counterclockwise to move left.

(R) = Red (B) = Blue



4 Adjust the V CENT (R) and (B) controls so that the red and blue horizontal lines converge with the center green line.
Turn the knobs clockwise to move up, and counterclockwise to move down.

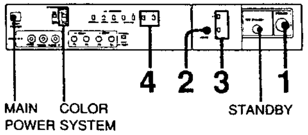


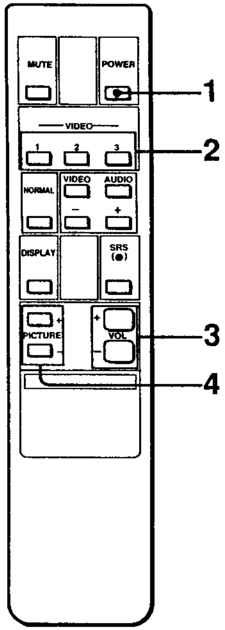
Repeat steps 3 and 4 to adjust the lines until the clock appears white.
(Step back from the monitor to see the effect.)

5 After completing the adjustment, set the NORMAL/TEST selector to NORMAL.

NORMAL
TEST

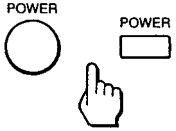
1-4. WATCHING THE PICTURE


4
2
3
1
MAIN POWER
COLOR SYSTEM
STANDBY

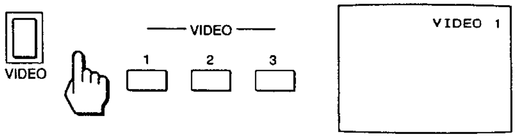

MUTE
POWER
VIDEO
1
2
3
NORMAL
VIDEO
AUDIO
–
+
DISPLAY
SRS (●)
PICTURE
VOL
1
2
3
4

Note
If you are using your monitor for the first time, turn on the main power by pressing the MAIN POWER button, then turn on the monitor by pressing POWER.

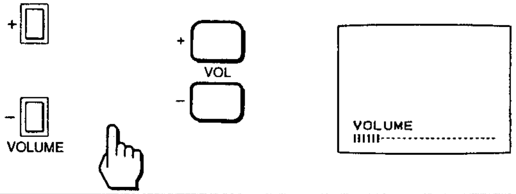
1 Press MAIN POWER on the monitor if the STANDBY lamp is not lit. Press POWER on the Remote Commander if the monitor is in standby mode.


POWER
POWER

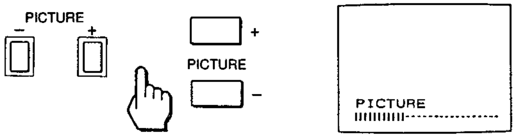
2 Press VIDEO on the monitor or VIDEO 1/2/3 on the Remote Commander to select the video input mode you want to watch.


VIDEO
VIDEO
1
2
3
VIDEO 1

3 Press VOLUME +/– on the monitor or VOL +/– on the Remote Commander to adjust the volume.


+
–
VOLUME
+
VOL
–
VOLUME

4 Press PICTURE +/– on the monitor or Remote Commander to adjust the picture.


PICTURE
–
+
+
PICTURE
–
PICTURE

Press + to increase picture contrast with vivid color.
Press – to decrease picture contrast with soft color.

Turning off the monitor for a short period of time

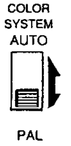
Press POWER on the Remote Commander. The STANDBY lamp on the monitor lights up, indicating that the monitor is in standby mode.

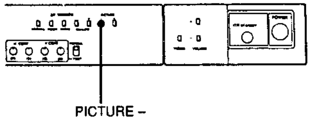
Cutting off the power completely

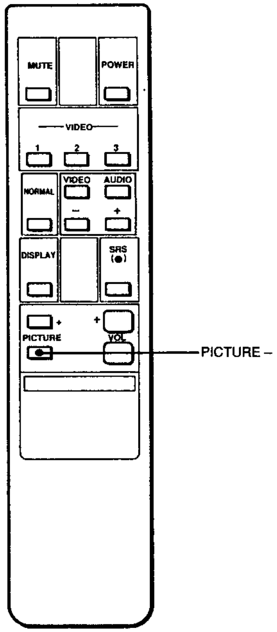
Press MAIN POWER on the monitor.

Setting COLOR SYSTEM

Normally, set COLOR SYSTEM to AUTO.
Abnormal color reproduction (for example, a red or blue picture) may occur when a PAL color system signal that is weak, of inferior quality and so on is received. Set COLOR SYSTEM to PAL to restore normal picture color.

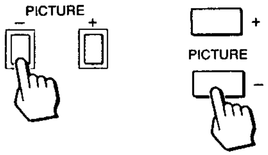

COLOR SYSTEM
AUTO
PAL

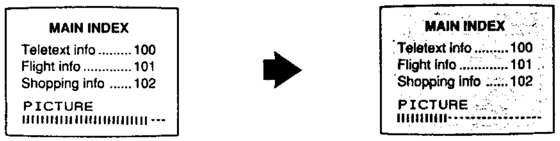



MUTE
POWER
VIDEO
1
2
3
NORMAL
VIDEO
AUDIO
–
+
DISPLAY
SRS (●)
PICTURE
VOL
PICTURE –

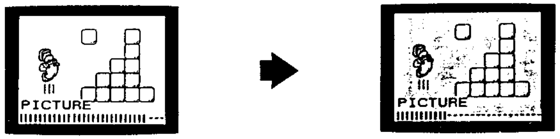
Displaying a word screen or video game image

When displaying a still word screen from a connected microcomputer, or video game screen, adjust the PICTURE level. Press PICTURE – on the monitor or Remote Commander to adjust PICTURE to the recommended level.


PICTURE
–
+
+
PICTURE
–


MAIN INDEX
Teletext info.........100
Flight info.............101
Shopping info......102
PICTURE
MAIN INDEX
Teletext info.........100
Flight info.............101
Shopping info......102
PICTURE

Word screen
Recommended level


PICTURE
PICTURE

Video game screen
Recommended level

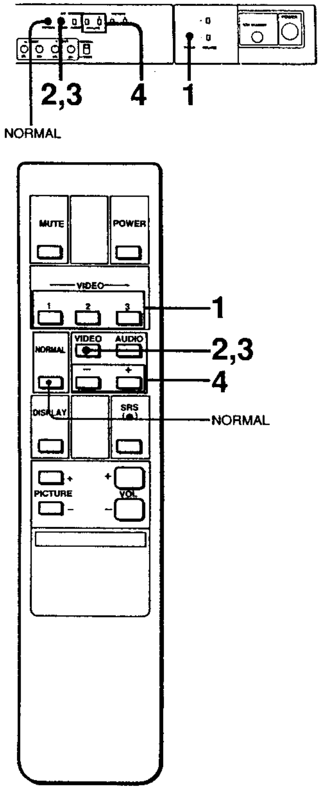
Cautions on using this monitor

If the image from connected video disc player, VTR, microcomputer, etc. is left displayed in a fixed position, a ghost image may become etched on the screen, interfering with normal picture viewing. To prevent this:

- Avoid displaying a still image (from video games, microcomputer, etc.) for a long time.
- Avoid displaying an image in a fixed position on the screen. (For example, turn off the picture number or time display which may appear at the upper right of the screen.

1-5. ADJUSTING PICTURE AND SOUND QUALITY

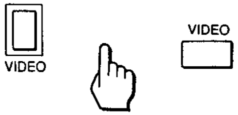
You can set different picture and sound quality levels for each input mode by changing the input mode (VIDEO 1/2/3) before setting. These settings will be retained even when you turn the monitor off.

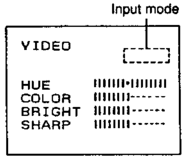

2,3
4
1
NORMAL
MUTE
POWER
VIDEO
1
2
3
NORMAL
VIDEO
AUDIO
1
2,3
4
NORMAL
DISPLAY
SRS
PICTURE
VOL

Adjusting the Picture

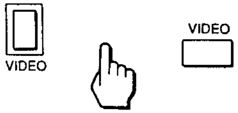
1 Press VIDEO on the monitor or VIDEO 1/2/3 on the Remote Commander to select the input mode you want.

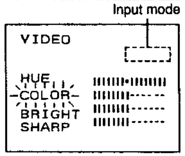
2 Press AV WINDOW VIDEO on the monitor or VIDEO on the Remote Commander.


VIDEO
VIDEO

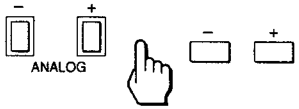

Input mode
VIDEO
HUE
COLOR
BRIGHT
SHARP

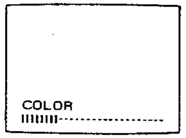
3 Press VIDEO repeatedly until the quality you want to adjust blinks.


VIDEO
VIDEO


Input mode
VIDEO
HUE
COLOR
BRIGHT
SHARP

4 Press ANALOG +/– on the monitor or +/– on the Remote Commander to make the adjustment.



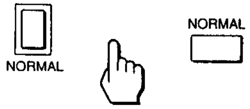


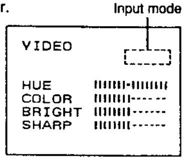
Picture quality	Press – button	Press + button
HUE (NTSC color system only)	Skin tones become purplish	Skin tones become greenish
COLOR	For less color intensity	For more color intensity
BRIGHT	For less brightness	For more brightness
SHARP	For less sharpness	For more sharpness

The display will disappear automatically after a few seconds.

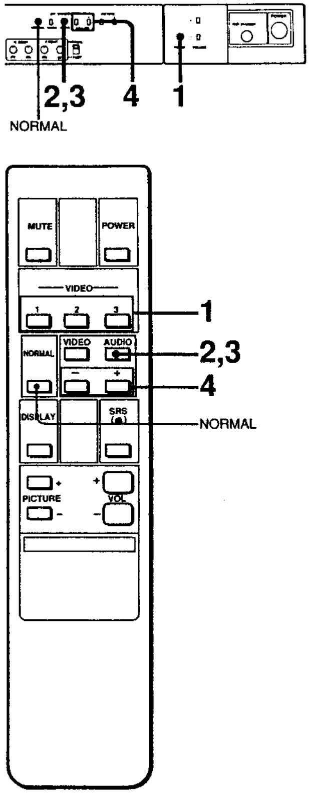
Restoring the factory (mid-level) settings

Press NORMAL on the monitor or Remote Commander.


NORMAL
NORMAL


Input mode
VIDEO
HUE
COLOR
BRIGHT
SHARP

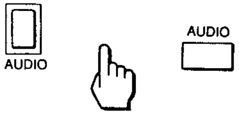
The display will disappear after a few seconds.

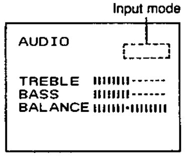

2,3
4
1
NORMAL
MUTE
POWER
VIDEO
1
2
3
NORMAL
VIDEO
AUDIO
1
2,3
4
NORMAL
DISPLAY
SRS
PICTURE
VOL

Adjusting the Sound

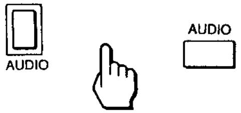
1 Press VIDEO on the monitor or VIDEO 1/2/3 on the Remote Commander to select the video input mode you want.

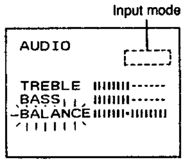
2 Press AV WINDOW AUDIO on the monitor or AUDIO on theRemote Commander.


AUDIO
AUDIO

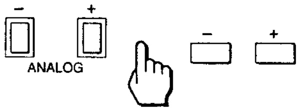

Input mode
AUDIO
TREBLE
BASS
BALANCE

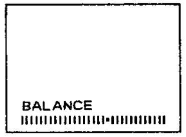
3 Press AUDIO repeatedly until the quality you want to adjust blinks.


AUDIO
AUDIO


Input mode
AUDIO
TREBLE
BASS
BALANCE

4 Press ANALOG +/– on the monitor or +/– on the Remote Commander to make the adjustment.



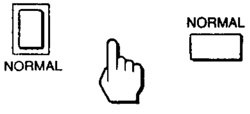


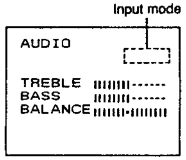
Sound quality	Press – button	Press + button
TREBLE	To decrease treble response	To increase treble response
BASS	To decrease bass response	To increase bass response
BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

The display will disappear automatically after a few seconds.

Restoring the factory (mid-level) settings

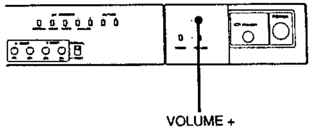
Press NORMAL.

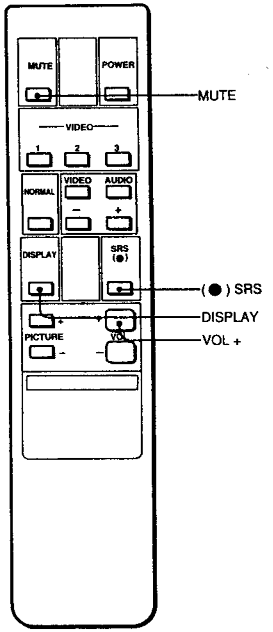

NORMAL
NORMAL


Input mode
AUDIO
TREBLE
BASS
BALANCE

The display will disappear after a few seconds.

1-6. ENJOYING OTHER USEFUL FEATURES

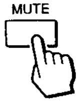


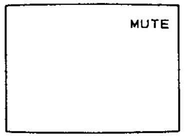

MUTE
POWER
VIDEO
1
2
3
NORMAL
VIDEO
AUDIO
DISPLAY
SRS
PICTURE
VOL
MUTE
(●) SRS
DISPLAY
VOL +

Muting the sound — MUTE

Press MUTE.

The display "MUTE" will appear on the screen.





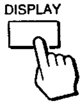
To restore the sound

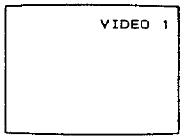
Press MUTE again, or press VOLUME + on the monitor or VOL + on the Remote Commander.

Keeping the input mode displayed — DISPLAY

Press DISPLAY.

The current input mode display will remain on the screen.





To cancel the display

Press DISPLAY again.

The display will disappear.

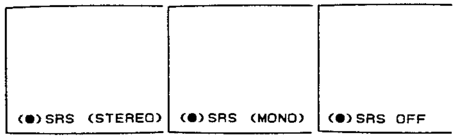
Producing a lifelike sound — (●) SRS

To reproduce the dynamics of a live performance — Sound Retrieval System.

Press SRS.

Each time you press SRS, the SRS (STEREO), SRS (MONO) and SRS OFF modes are selected in sequence.

The display (in green) for each mode will appear on the screen for a few seconds.


(●) SRS (STEREO)
(●) SRS (MONO)
(●) SRS OFF

In SRS (STEREO) mode, stereo sound is enhanced.

In SRS (MONO) mode, the natural sound of a monaural source is enhanced.

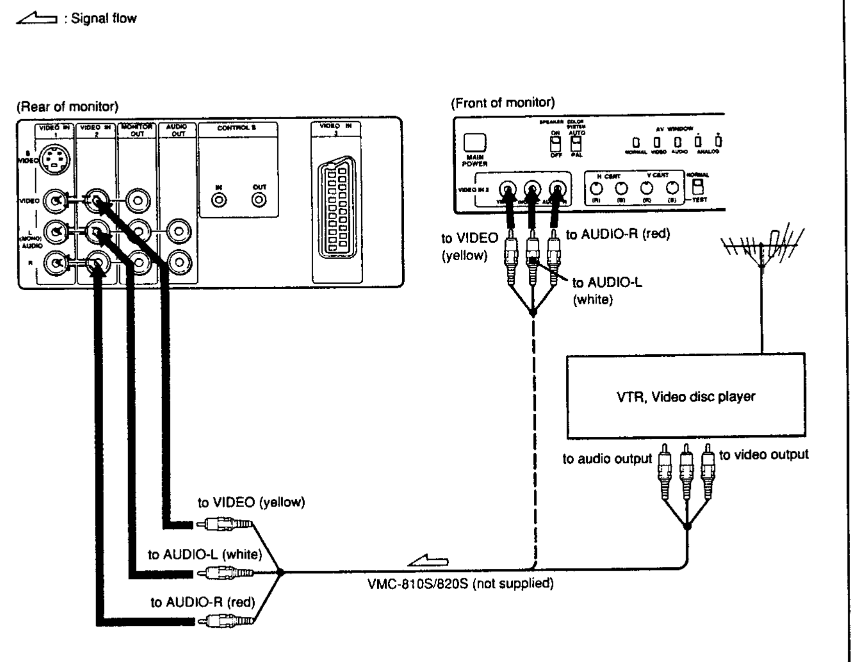
To cancel SRS

Select SRS OFF

1-7. CONNECTING VIDEO EQUIPMENT

After connecting, you will be able to enjoy the playback of video tapes and video discs.

Connecting VTRs/video disc players not equipped with the S Video output jack


: Signal flow
(Rear of monitor)
VIDEO IN 1
VIDEO IN 2
MONITOR OUT
AUDIO OUT
CONTROL S
VIDEO IN 3
S VIDEO
VIDEO
L (MONO) AUDIO
R
IN
OUT
(Front of monitor)
MAIN POWER
SPEAKER
COLOR SYSTEM
ON
OFF
AUTO
PAL
AV WINDOW
NORMAL
VIDEO
AUDIO
ANALOG
VIDEO IN 2
H CENT
V CENT
NORMAL
TEST
to VIDEO (yellow)
to AUDIO-R (red)
to AUDIO-L (white)
VTR, Video disc player
to audio output
to video output
to VIDEO (yellow)
to AUDIO-L (white)
to AUDIO-R (red)
VMC-810S/820S (not supplied)

Operating your equipment

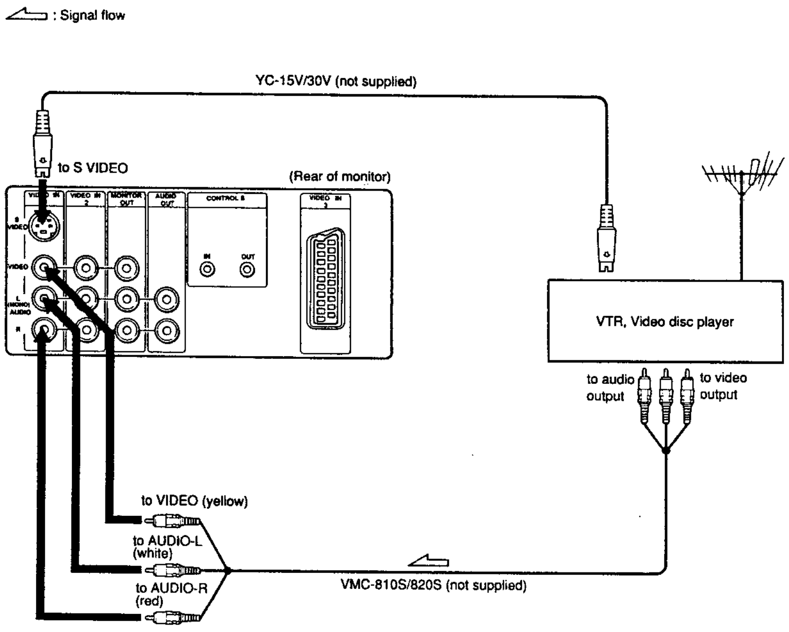
1 Select VIDEO IN 1 or VIDEO IN 2 mode by pressing VIDEO on the monitor, or VIDEO 1 or VIDEO 2 on the Remote Commander. The input mode indication will appear on the screen.

2 Set the VTR to playback mode.

Notes

- Before connecting, be sure to turn off all equipment.
- The plugs should be fully inserted into the jacks. A loose connection may cause hum and noise.
- If you connect a monaural VTR, connect the audio output of the VTR to the L (MONO) jack. The monaural sound will be heard from both speakers.
- If you try to use the equipment connected to the front and the rear VIDEO IN 2 jacks at the same time, the picture will be distorted. Be sure you turn one of them off first.

Connecting VTRs/video disc players equipped with the S Video output jack


: Signal flow
YC-15V/30V (not supplied)
to S VIDEO
(Rear of monitor)
VTR, Video disc player
to audio output
to video output
to VIDEO (yellow)
to AUDIO-L (white)
to AUDIO-R (red)
VMC-810S/820S (not supplied)

Notes

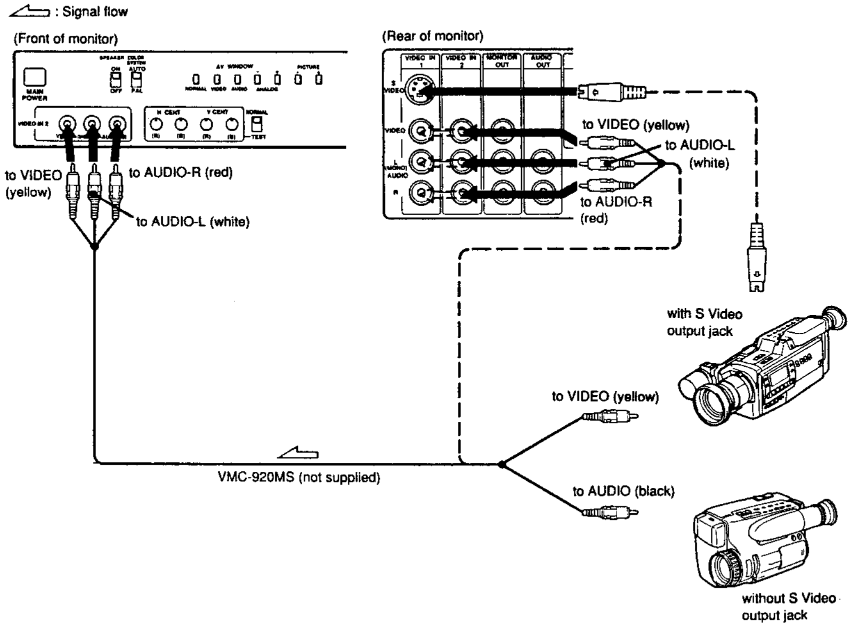
- When both S VIDEO and VIDEO input jacks (VIDEO IN 1) are connected, the picture from S VIDEO is received.
- To view the picture from S VIDEO, select VIDEO 1 by pressing VIDEO on the monitor or VIDEO 1 on the Remote Commander.

About S Video Input

Video input and output signals may be separated into Y (luminance or brightness) and C (chroma or color) signals. Usually these two signals are combined in a VTR and sent as one signal to a monitor. Separation of the Y and C signals prevents them from interfering with one another, thereby improving picture (especially in color) quality.
This monitor is equipped with an S video input jack through which these separated signals can be input directly.

Connecting Camcorders with and without the S Video output jack

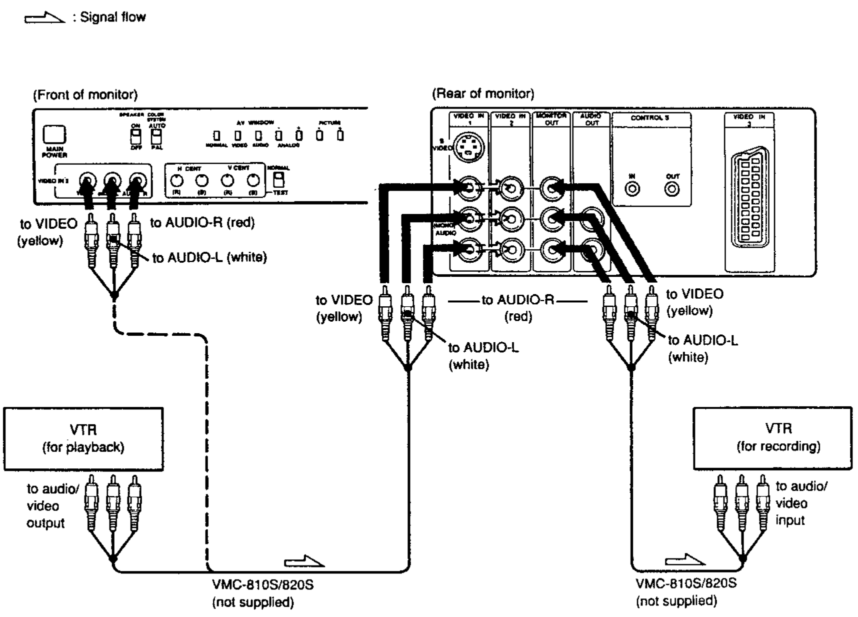
Playing back recorded tapes


: Signal flow
(Front of monitor)
(Rear of monitor)
MAIN POWER
to VIDEO (yellow)
to AUDIO-R (red)
to AUDIO-L (white)
to VIDEO (yellow)
to AUDIO-L (white)
to AUDIO-R (red)
with S Video output jack
to VIDEO (yellow)
VMC-920MS (not supplied)
to AUDIO (black)
without S Video output jack

Note

If you try to use the equipment connected to the front and the rear VIDEO IN 2 jacks at the same time, the picture will be distorted. Be sure you turn one of them off first.

Connecting two VTRs for tape editing


: Signal flow
(Front of monitor)
(Rear of monitor)
to VIDEO (yellow)
to AUDIO-R (red)
to AUDIO-L (white)
to VIDEO (yellow)
to AUDIO-R (red)
to AUDIO-L (white)
to VIDEO (yellow)
to AUDIO-L (white)
VTR (for playback)
to audio/ video output
VTR (for recording)
to audio/ video input
VMC-810S/820S (not supplied)
VMC-810S/820S (not supplied)

Operating your equipment

1. Select the input mode for your equipment by pressing VIDEO on the monitor, or VIDEO 1 or VIDEO 2 on the Remote Commander. The input indication will appear on the screen.

2. Set the playback VTR to the playback mode and set the recording VTR to the recording mode.

To edit the tape
Connect the playback VTR to the VIDEO IN 1 jacks, and the front or rear panel VIDEO IN 2 jacks.

Note
If you try to use the equipment connected to the front VIDEO 2 IN jacks and the rear VIDEO IN 2 jacks at the same time, the picture will be distorted. Be sure you turn one of them off first.

Every time you press the VIDEO button on the monitor, or the VIDEO 1/2/3 buttons on the Remote Commander, the display will change as follows:

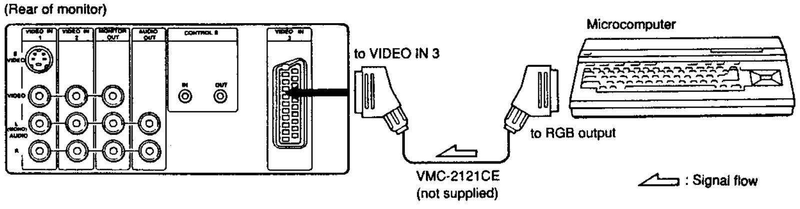
VIDEO 1 ——> VIDEO 2 ——> VIDEO 3

Caution
Video tapes and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the copyright laws.

About the CONTROL S jacks

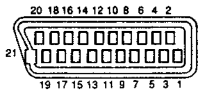
By connecting other Sony products to these jacks, you can control the connected equipment with one Remote Commander, or conduct systematic operations such as synchronized editing (see the VTR's manual for details).

Connecting a microcomputer


(Rear of monitor)
to VIDEO IN 3
Microcomputer
to RGB output
VMC-2121CE (not supplied)
: Signal flow

To view the input from the microcomputer.
Press VIDEO on the monitor or VIDEO 3 on the Remote Commander so that the VIDEO 3 display appears on the screen.

21 pin Euro Connector Configuration

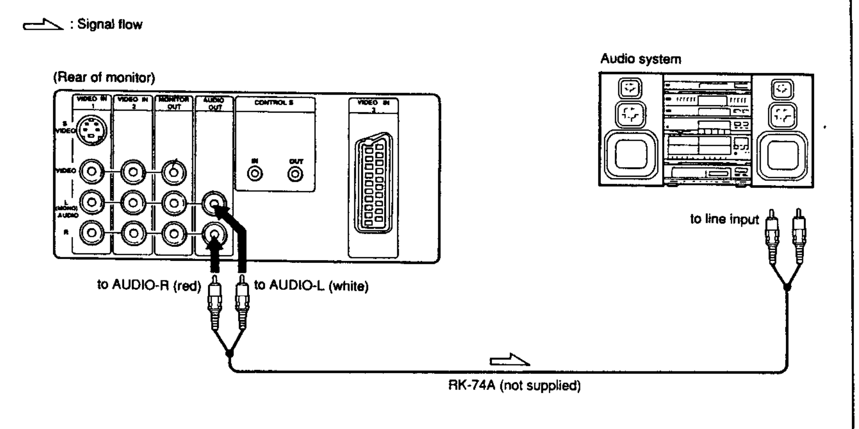

20 18 16 14 12 10 8 6 4 2
21
19 17 15 13 11 9 7 5 3 1

Notes
- When RGB-type equipment (like a microcomputer) is connected, you can adjust PICTURE and BRIGHT, but not HUE, COLOR or SHARP.
- If you connect a microcomputer or anything else to the VIDEO IN 3 jack, be sure to turn the connected equipment off when watching images coming in through the VIDEO IN 1, VIDEO IN 2, or (front panel) VIDEO IN 2 jacks. Otherwise, there may be interference to the picture being displayed.

Pin No.	Signal	Specification
1	Audio output	0.5 Vrms/1 kiloohms or less
2	Audio input	0.5 Vrms/10 kiloohms or more
3	Audio output	0.5 Vrms/1 kiloohms or less
4	Earth (audio)	—
5	Earth (B-input)	—
6	Audio input	0.5 Vrms/10 kiloohms or more
7	B-input	0.7 Vp-p/75 ohms
8	Function switching	9.5 V to 12 V
9	Earth (G-input)	—
10	—	—
11	G-input	0.7 Vp-p/75 ohms
12	—	—
13	Earth (R-input)	—
14	Earth	—
15	R-input	0.7 Vp-p/75 ohms
16	Fast blanking	1 V to 3 V/75 ohms
17	Earth (video)	—
18	Earth (fast blanking	—
19	Video output	1 Vp-p/75 ohms
20	Video input	1 Vp-p/75 ohms
21	Screening plug	—

1-8. CONNECTING AUDIO EQUIPMENT

Listening to the monitor's sound through a stereo system


: Signal flow
(Rear of monitor)
Audio system
to line input
to AUDIO-R (red)
to AUDIO-L (white)
RK-74A (not supplied)

Preparing for operation

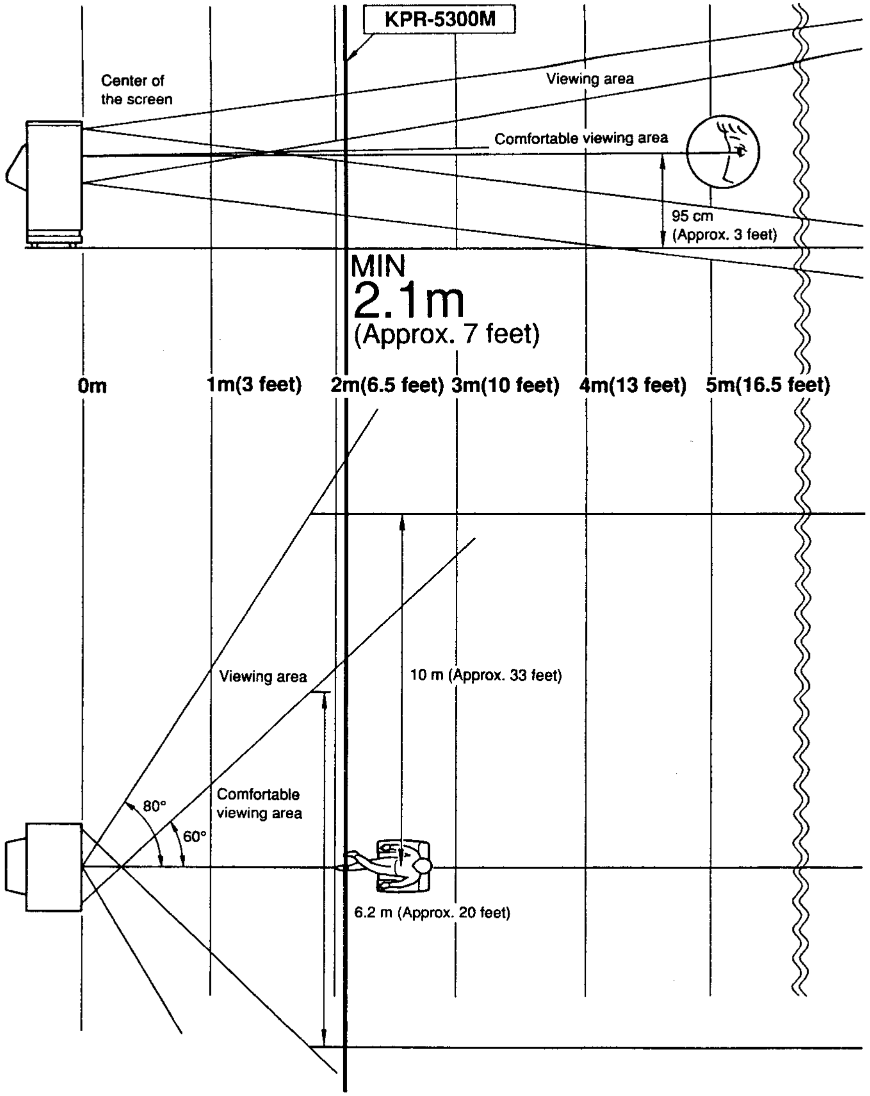
Set the SPEAKER ON/OFF selector on the front panel to OFF to listen to your monitor's sound solely through a stereo system. (The sound from the monitor's speakers is cut off.)

Adjusting the sound level

Leave the amplifier volume, bass and treble controls at their mid position and adjust the level with the VOLUME +/– button on the monitor or the VOL +/– buttons on the Remote Commander.

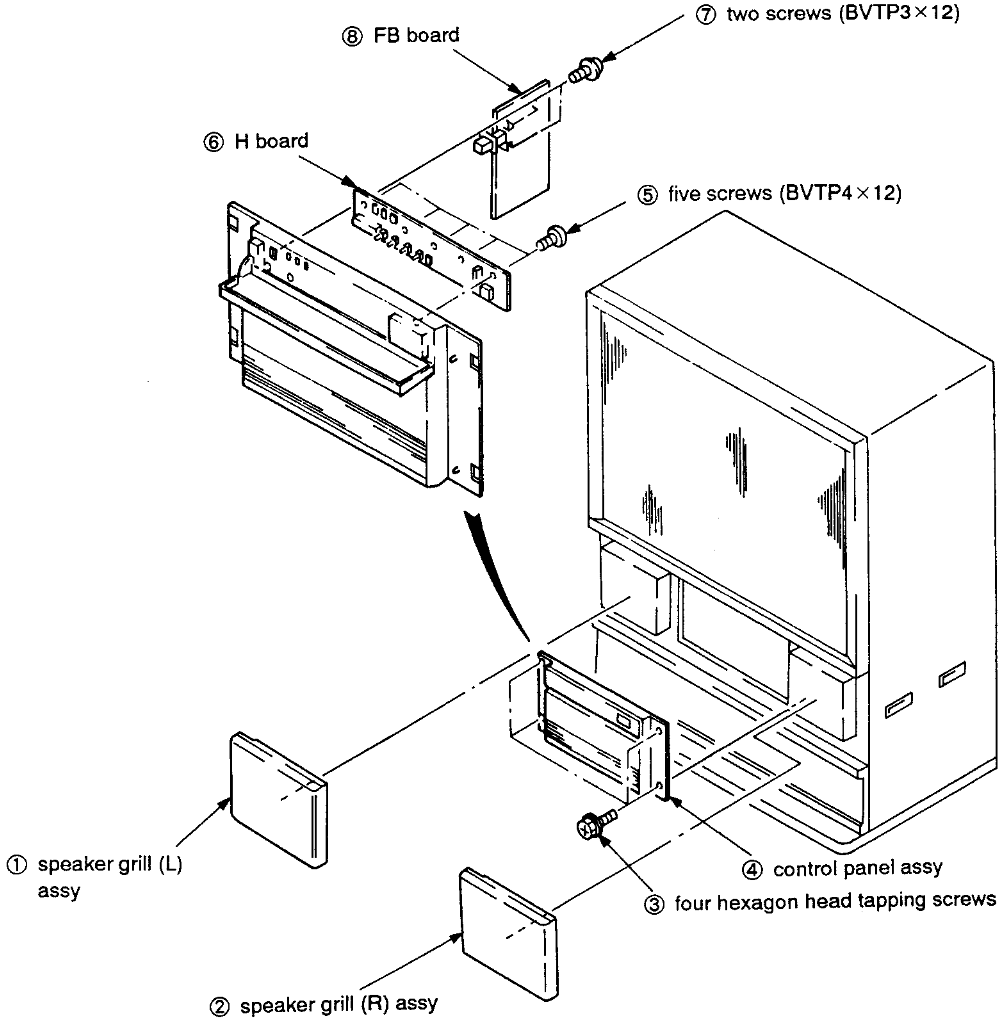
When the SPEAKER selector is set to ON, adjust the speaker volume with the stereo amplifier.

1-9. VIEWING AREA

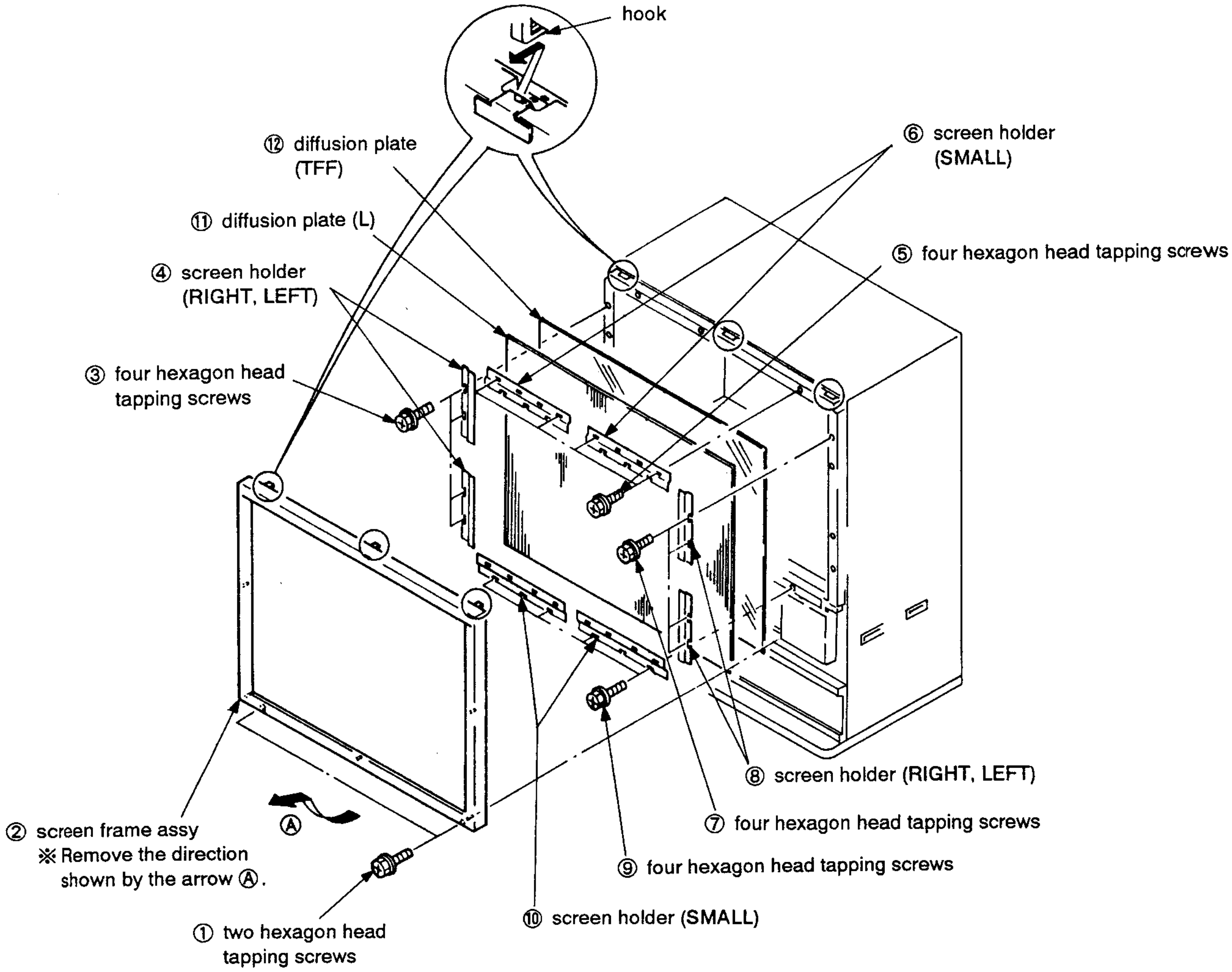

KPR-5300M
Center of the screen
Viewing area
Comfortable viewing area
95 cm
(Approx. 3 feet)
MIN
2.1m
(Approx. 7 feet)
0m
1m(3 feet)
2m(6.5 feet)
3m(10 feet)
4m(13 feet)
5m(16.5 feet)
Viewing area
10 m (Approx. 33 feet)
Comfortable
viewing area
80°
60°
6.2 m (Approx. 20 feet)

SECTION 2
DISASSEMBLY

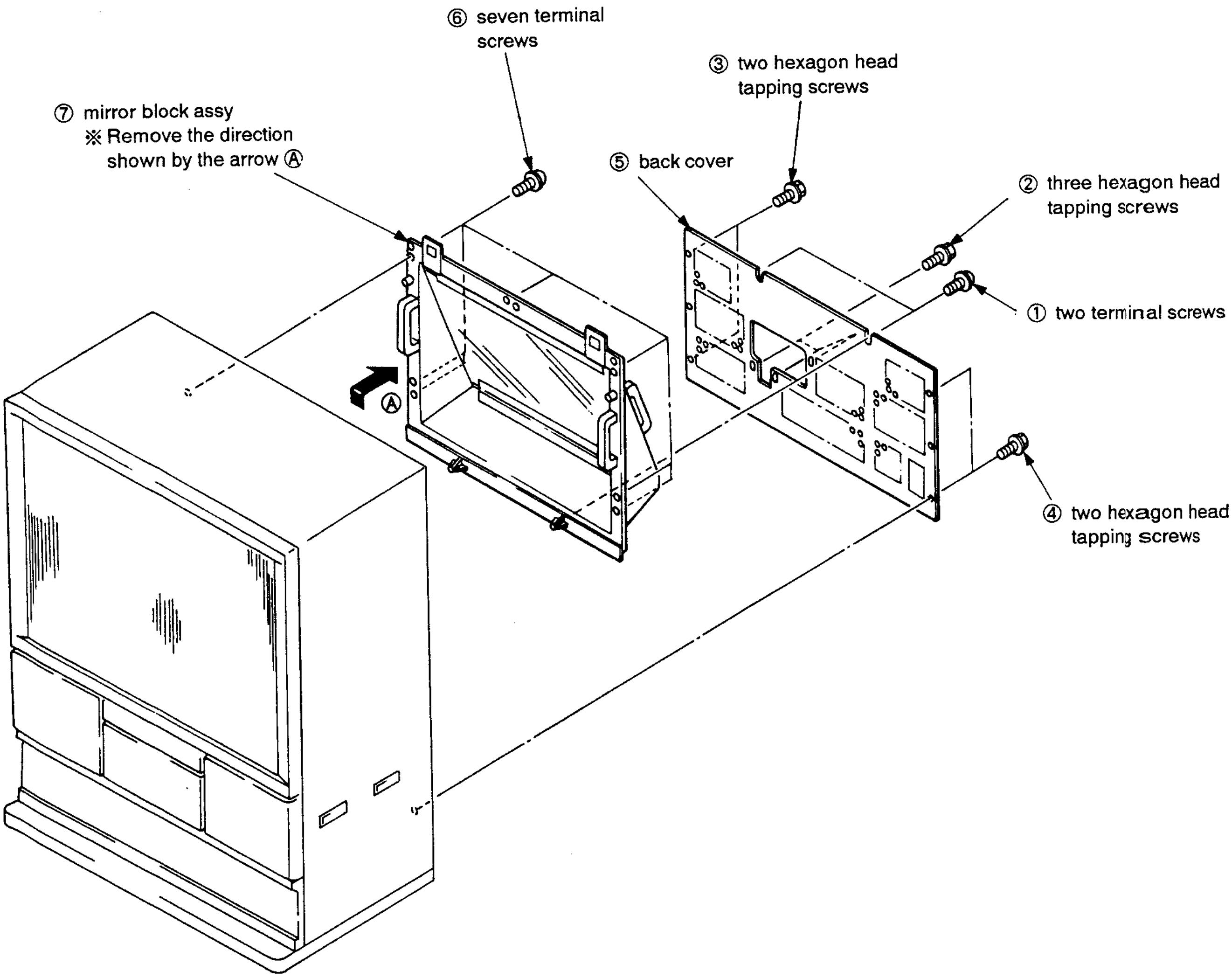
2-1. CONTROL PANEL REMOVAL


⑦ two screws (BVTP3×12)
⑧ FB board
⑥ H board
⑤ five screws (BVTP4×12)
① speaker grill (L) assy
④ control panel assy
③ four hexagon head tapping screws
② speaker grill (R) assy

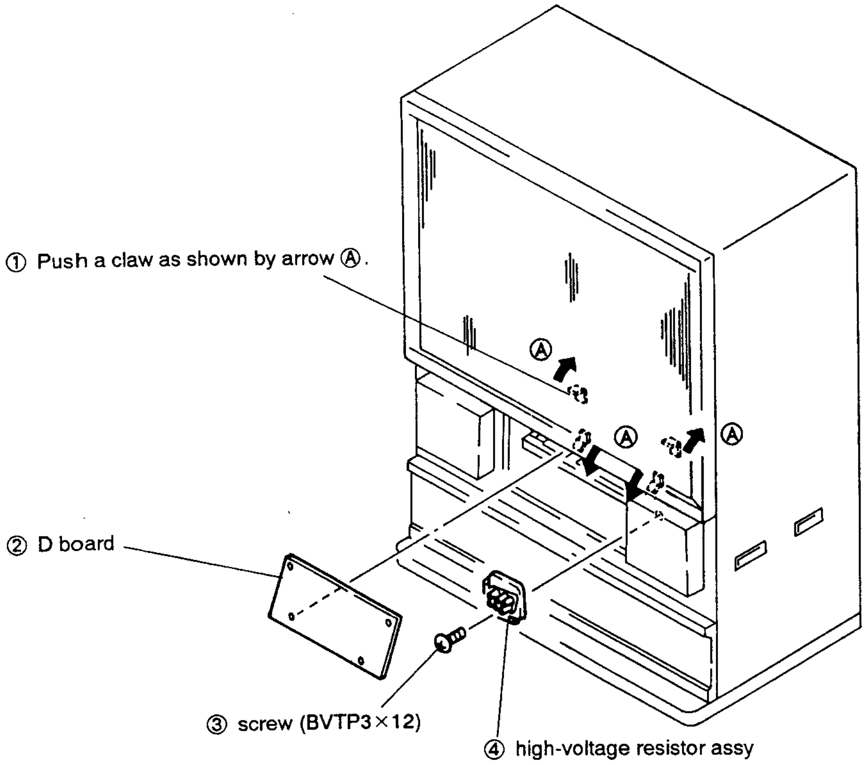
2-2. SCREEN REMOVAL


hook
⑫ diffusion plate (TFF)
⑪ diffusion plate (L)
④ screen holder (RIGHT, LEFT)
③ four hexagon head tapping screws
⑥ screen holder (SMALL)
⑤ four hexagon head tapping screws
⑧ screen holder (RIGHT, LEFT)
⑦ four hexagon head tapping screws
⑨ four hexagon head tapping screws
⑩ screen holder (SMALL)
② screen frame assy
※ Remove the direction shown by the arrow Ⓐ.
Ⓐ
① two hexagon head tapping screws

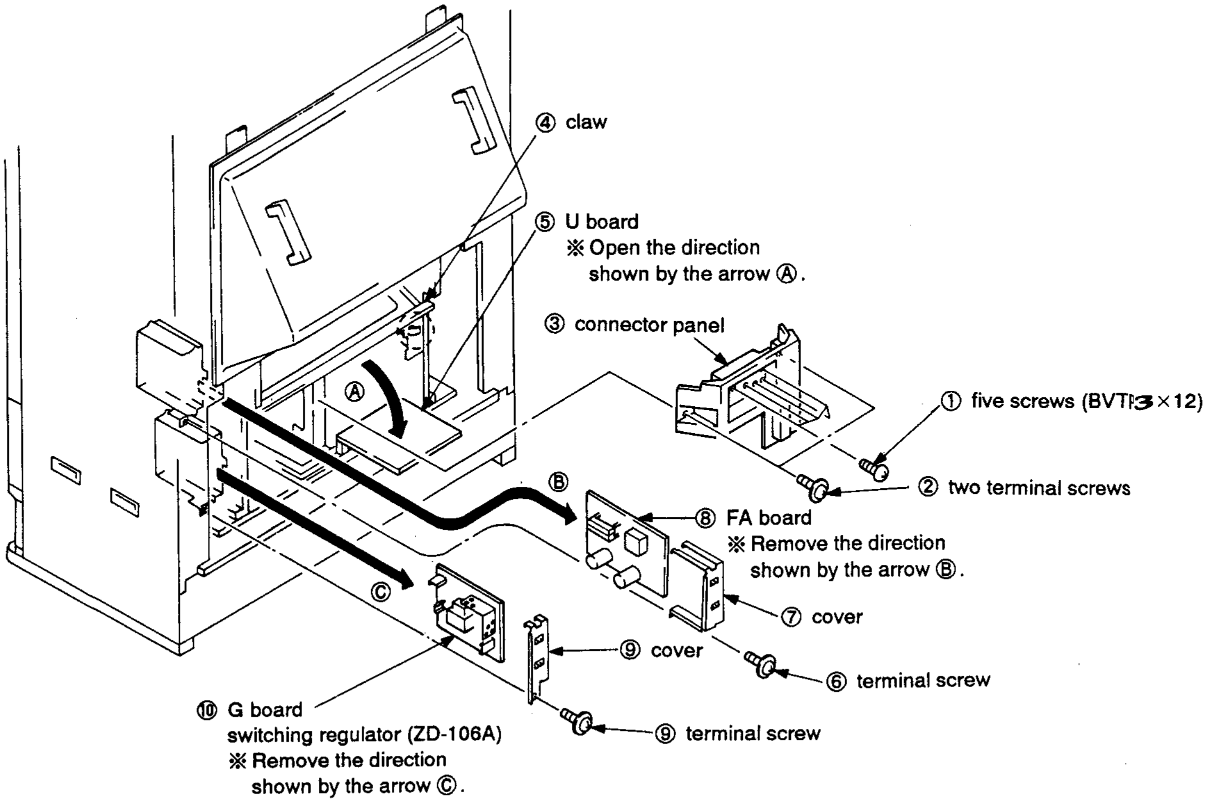
2-3. MIRROR BLOCK ASSY REMOVAL


⑥ seven terminal screws
③ two hexagon head tapping screws
⑦ mirror block assy
※ Remove the direction shown by the arrow Ⓐ
⑤ back cover
② three hexagon head tapping screws
① two terminal screws
Ⓐ
④ two hexagon head tapping screws

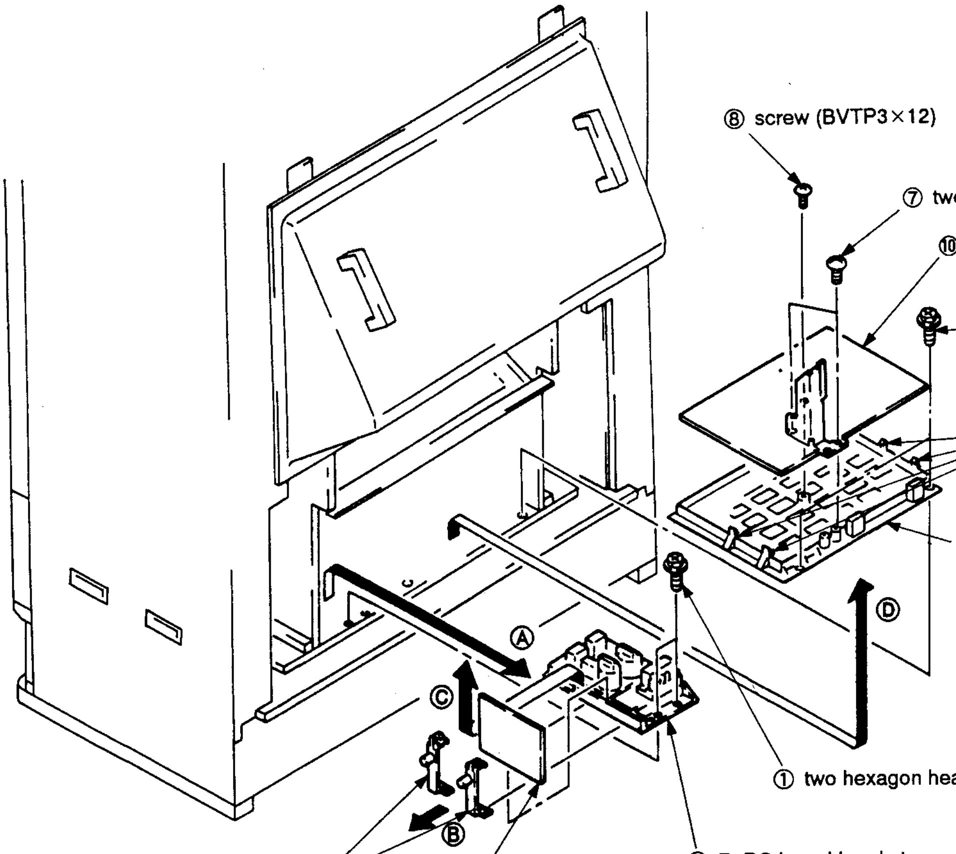
2-4. D BOARD AND HIGH-VOLTAGE RESISTOR ASSY REMOVAL


① Push a claw as shown by arrow Ⓐ.
Ⓐ
Ⓐ
Ⓐ
② D board
③ screw (BVTP3×12)
④ high-voltage resistor assy

2-5. CONNECTOR PANEL AND U BOARD, FA BOARD, SWITCHING REGULATOR REMOVAL


④ claw
⑤ U board
※ Open the direction shown by the arrow Ⓐ.
③ connector panel
① five screws (BVTP3×12)
② two terminal screws
Ⓐ
Ⓑ
⑧ FA board
※ Remove the direction shown by the arrow Ⓑ.
⑦ cover
Ⓒ
⑨ cover
⑥ terminal screw
⑩ G board
switching regulator (ZD-106A)
※ Remove the direction shown by the arrow Ⓒ.
⑨ terminal screw

2-6. P AND A BOARDS REMOVAL



⑧ screw (BVTP3×12)

⑦ two screws (BVTP M4)

⑩ A board

⑤ two hexagon head tapping screws

⑨ Remove four craws

⑥ A board bracket
※ Remove the direction shown by the arrow Ⓓ.

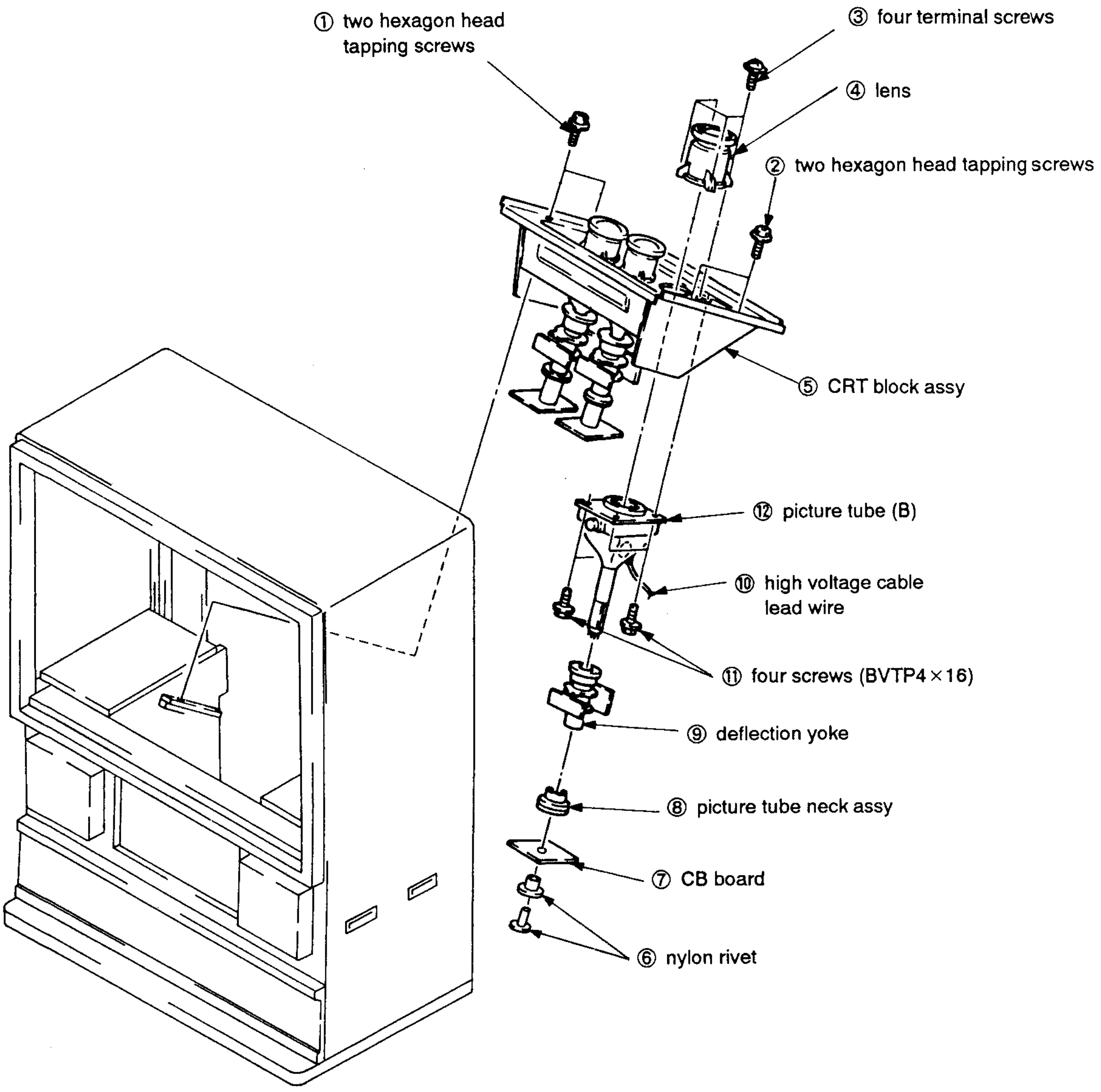
① two hexagon head tapping screws

② P, PC board bracket
※ Remove the direction shown by the arrow Ⓐ.

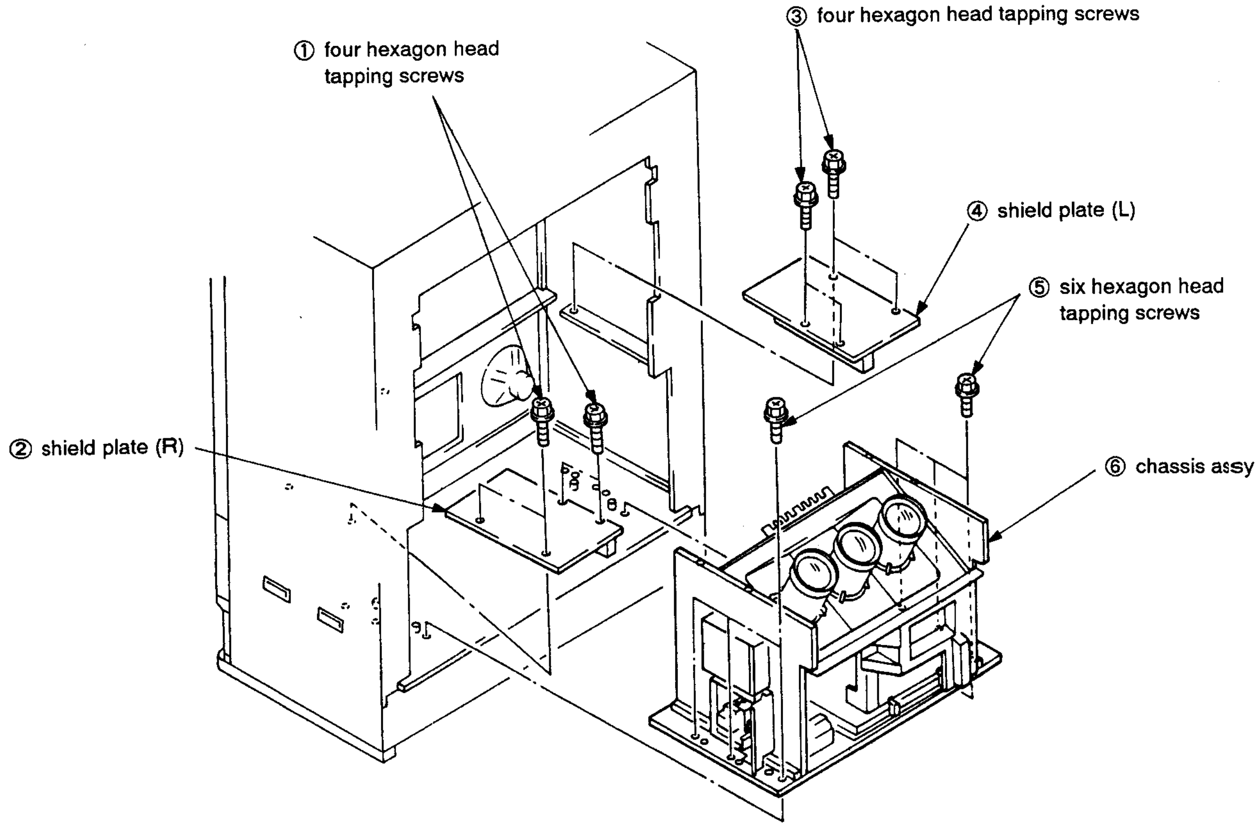
③ P board retainer
※ Remove the direction shown by the arrow Ⓑ.

④ P board
※ Remove the direction shown by the arrow Ⓒ.

2-7. PICTURE TUBE REMOVAL

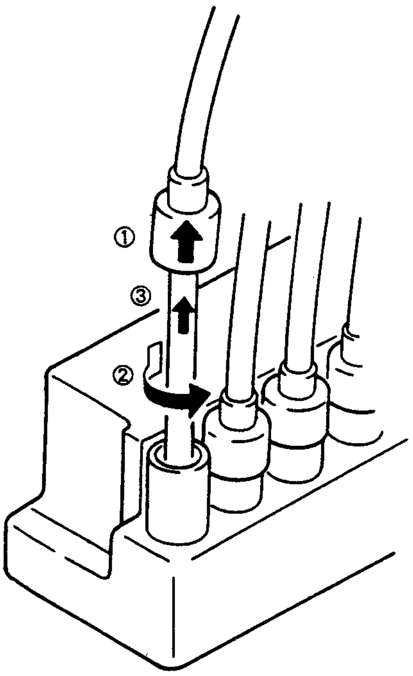

① two hexagon head tapping screws
③ four terminal screws
④ lens
② two hexagon head tapping screws
⑤ CRT block assy
⑫ picture tube (B)
⑩ high voltage cable lead wire
⑪ four screws (BVTP4 × 16)
⑨ deflection yoke
⑧ picture tube neck assy
⑦ CB board
⑥ nylon rivet

2-8. CHASSIS ASSY REMOVAL


③ four hexagon head tapping screws
① four hexagon head tapping screws
④ shield plate (L)
⑤ six hexagon head tapping screws
② shield plate (R)
⑥ chassis assy

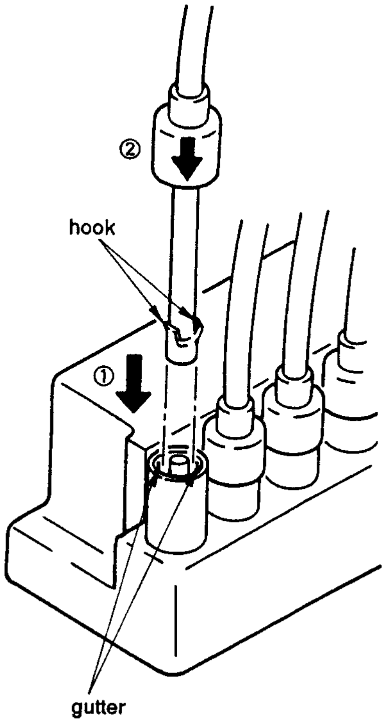
2-9. HIGH-VOLTAGE CABLE INSTALLATION AND REMOVAL

(1) Remover



② Pressing cable, turn 90°

(2) Installation



② Assure cable is locked.
※HV cable will be locked, if inserted along the HV block gutter.

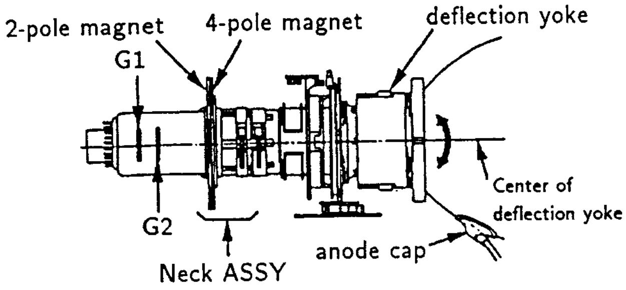
SECTION 3

SETUP ADJUSTMENTS

NOTE : CAUTION FOR ADJUSTMENT
When you perform setup adjustment, electric adjustment, and adjustment for replaced PICTURE TUBE, you should not keep any clearance between PICTURE TUBE and DY (deflection yoke).

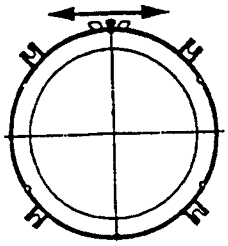
3-1. FOCUS LENS ADJUSTMENTS

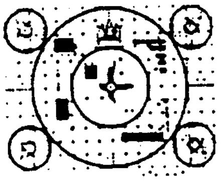
1. Check that VR of D board (registration adjustment) and VR (CENT) are at the mechanical center.

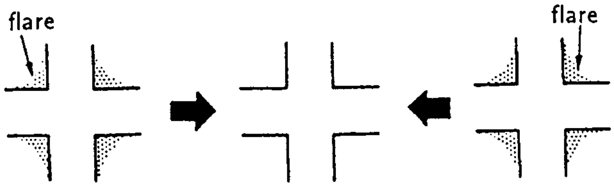


Note : Align the Neck Assy with the face of G3.

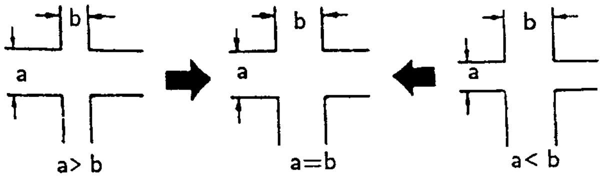
2. Input a monoscope signal and make rough adjustment of white balance at BRIGHTNESS 50% and PICTURE 0%.
3. Set BRIGHTNESS and PICTURE maximum and change the NOR/TEST switch to TEST and HATCH/BAR select switch to HATCH to show cross hatch.
4. Cover a lens cap on the red and blue lenses and project green only.
5. Rotate the green lens and adjust to obtain the best lens focus.




monoscope signal



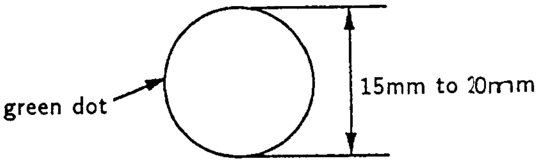
6. Rotate the green focus volume of the focus pack and adjust to obtain the best electric focus.



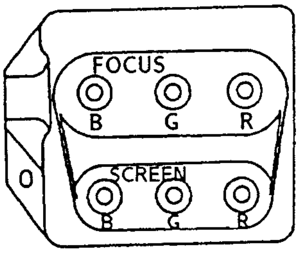
7. Repeat steps 5, and 6, track, then adjust to obtain the best focus.
8. Tighten the green lens screws and fix the lens.
9. Adjust the red and blue focuses similarly.

3-2. ADJUSTMENTS OF 4-POLE MAGNET

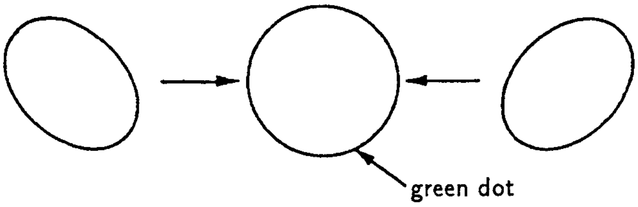
1. Receive dot signal.
2. Set PICTURE to maximum, and BRIGHTNESS to 50%.
3. Turn green focus volume of the focus pack clockwise, and adjust the spot size shown as below.
   (So it stands out in the center of the screen.)



Focus pack



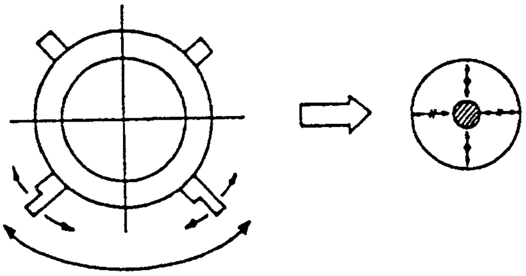
4. Make the spot round by adjusting the 4-pole magnet for spot adjustment as shown below.
   NOTE : Adjust the 4-pole magnet by closing and opening the upper and lower magnet layers while rotatingit left and right to make the spot round



5. Adjust the red and blue focuses similarly.

3-3. ADJUSTMENTS OF 2-POLE MAGNET

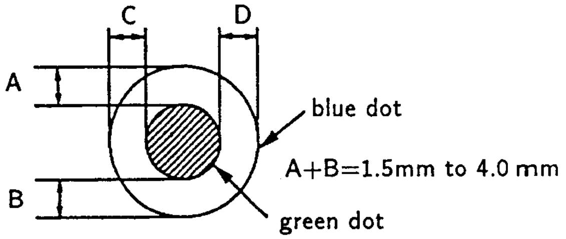
1. Receive dot signal.
2. Cover red and blue lens. (See only green dot.)
3. Turn green focus volume counterclockwise from just-focus position and then confirm that diameter of the dot becomes bigger.
4. Adjust the luminous point to be the center of the dot by 2-pole magnet.



5. Turn focus volume clockwise to be "just focus".
6. Adjust the red and blue 2-pole magnet similarly.

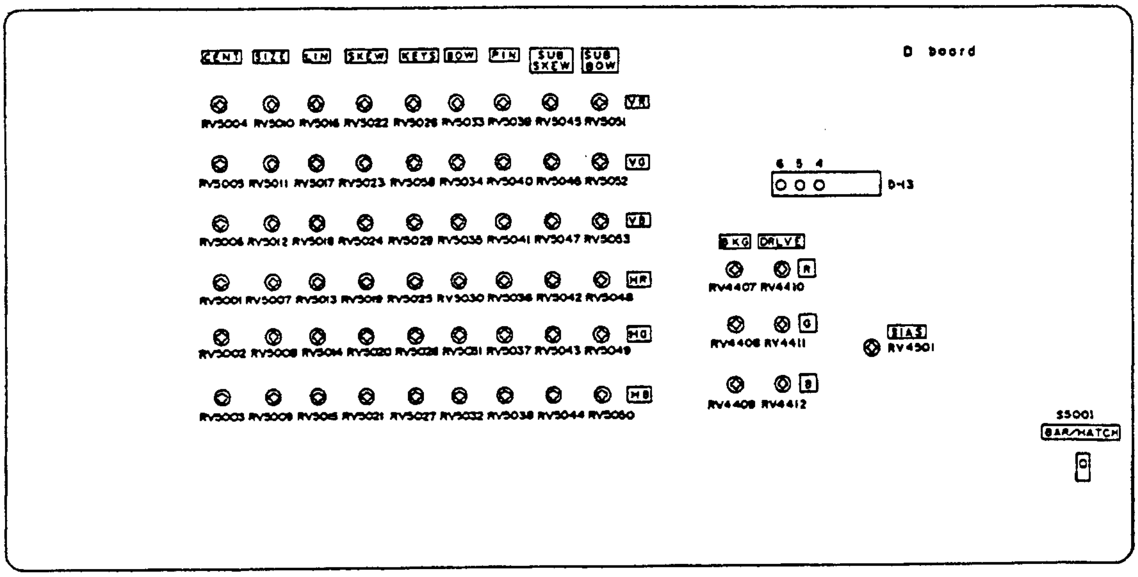
3-4. ADJUSTMENT (BLUE) OF DEFOCUS

1. Receive dot signal.
2. Set PICTURE to maximum, and set BRIGHTNESS to 50%.
3. Turn blue focus volume of the focus pack clockwise until the diameter of the blue dot becomes bigger (1.5mm to 4.0mm) than that of green.



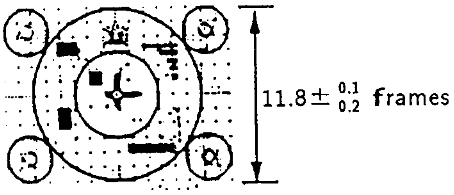
NOTE: C+D = Less than 4.0 mm.

【D board】


D board
CENT
SIZE
LIN
SKEW
KEYS
BOW
PIN
SUB SKEW
SUB BOW
VR
RV5004 RV5010 RV5016 RV5022 RV5028 RV5033 RV5039 RV5045 RV5051
VG
RV5005 RV5011 RV5017 RV5023 RV5058 RV5034 RV5040 RV5046 RV5052
VB
RV5006 RV5012 RV5018 RV5024 RV5029 RV5035 RV5041 RV5047 RV5053
HR
RV5001 RV5007 RV5013 RV5019 RV5025 RV5030 RV5036 RV5042 RV5048
HG
RV5002 RV5008 RV5014 RV5020 RV5026 RV5031 RV5037 RV5043 RV5049
HB
RV5003 RV5009 RV5015 RV5021 RV5027 RV5032 RV5038 RV5044 RV5050
6 5 4
D-13
BKG
DRIVE
R
RV4407 RV4410
G
RV4408 RV4411
B
RV4409 RV4412
BIAS
RV4501
S5001
BAR/HATCH

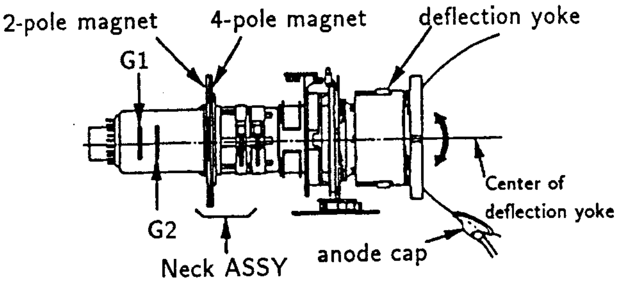
(Component side)

3-5. GREEN PICTURE ADJUSTMENTS


$11.8 \pm {}^{0.1}_{0.2}$ frames

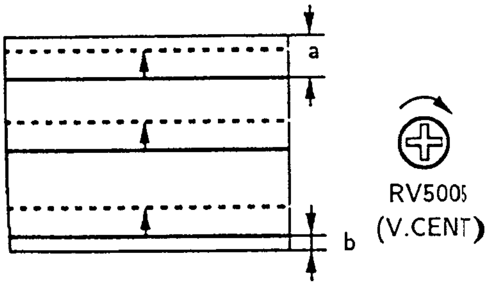
monoscope signal

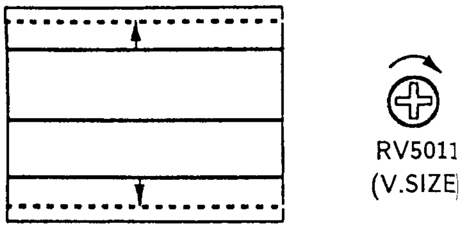
1. Input a monoscope signal.
2. Cover a lens cap on the red and blue lenses and project green only.
3. Adjust the green deflection yoke to make the monoscope horizontal center line horizontal, then fix the deflection yoke. Adjust the green neck ass'y to obtain a match with the green deflection yoke center and fix it.

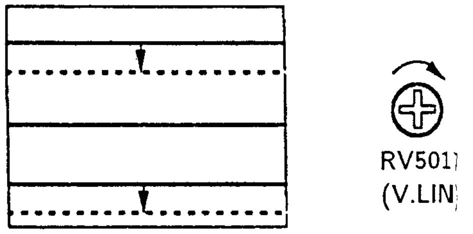

2-pole magnet
4-pole magnet
deflection yoke
G1
Center of deflection yoke
G2
Neck ASSY
anode cap

Note: Align the Neck Assy with the face of G3.

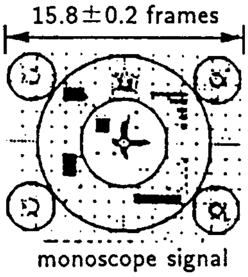
4. Rotate RV5017 (V LIN) on the D board to obtain the best linearity in the V direction. Rotate RV5011 (V SIZE) to adjust the V size to $11.80 \pm {}^{0.1}_{0.2}$ frames and rotate RV5005 (V CENT) to adjust the V center to the screen center.

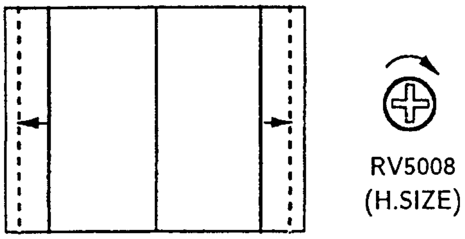

a
b
RV5005
(V.CENT)

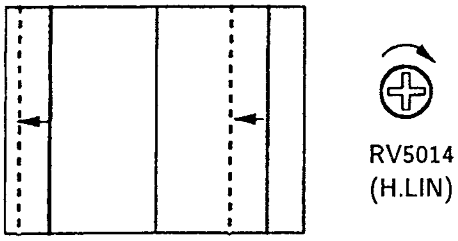

RV5011
(V.SIZE



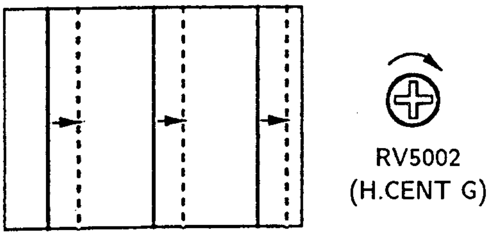
5. Rotate RV5014 (H LIN G) on the D board to obtain the best linearity in the H direction, rotate RV5008 (H SIZE) to adjust the H size to 15.8± 0.2 frames and rotate RV5002 (H CENT) to adjust the H center to the screen center.


15.8±0.2 frames
monoscope signal

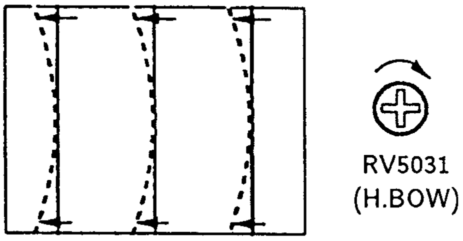

RV5008
(H.SIZE)

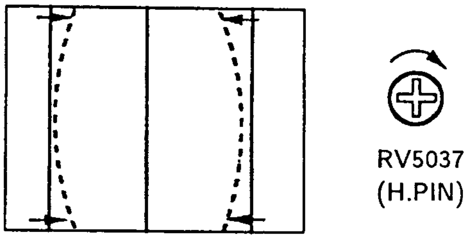

RV5014
(H.LIN)

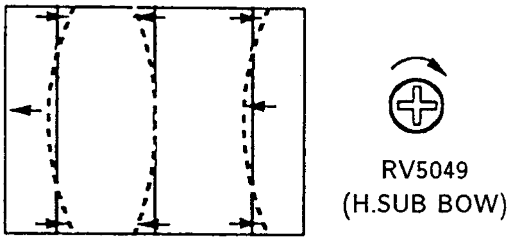
6. Rotate RV5002 (H CENT G) to adjust the H center to the screen center.

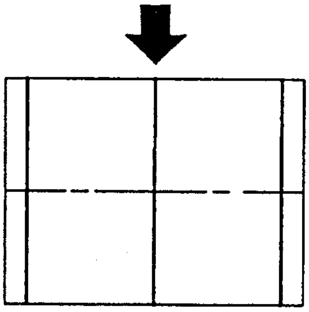

RV5002
(H.CENT G)

7. Set the NOR/TEST selector switch to TEST and HATCH/BAR selector switch to HATCH.
Rotate RV5031 (H BOW G), RV5037 (H PIN G), and RV5049 (H SUB BOW G) to adjust as shown below.

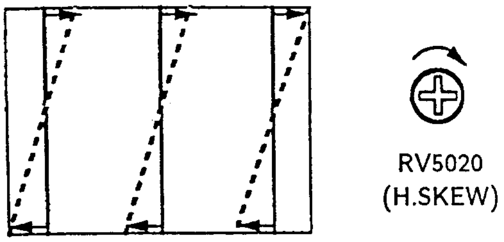

RV5031
(H.BOW)

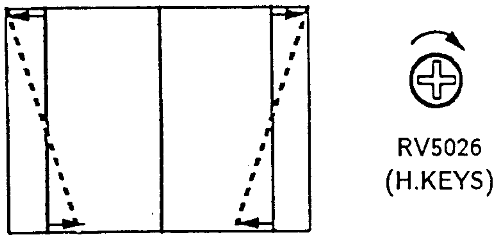

RV5037
(H.PIN)

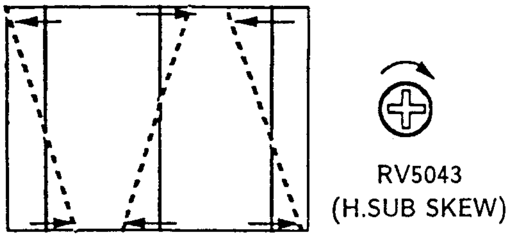

RV5049
(H.SUB BOW)

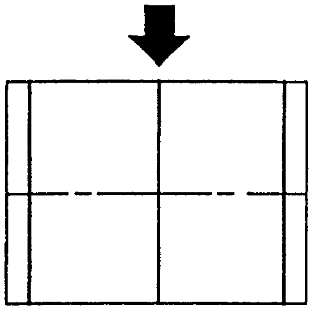


8. Correct tilting of the vertical center line using RV5020 (H SKEW G) and make the line perpendicular.
Rotate RV5026 (H KEYS G) to correct the tilting at both left and right edges to be in the same direction and in the same quantity. Rotate RV5043 (H SUB SKEW G) to correct the tilting of the left, right, and center vertical lines to be in the same direction and same quantity.
Rerotate RV5020 (H SKEW G) to eliminate tilting of all the vertical lines.


RV5020
(H.SKEW)

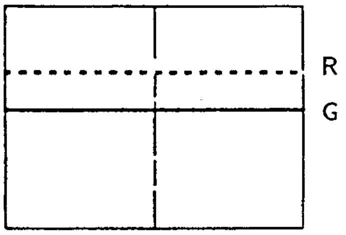

RV5026
(H.KEYS)


RV5043
(H.SUB SKEW)

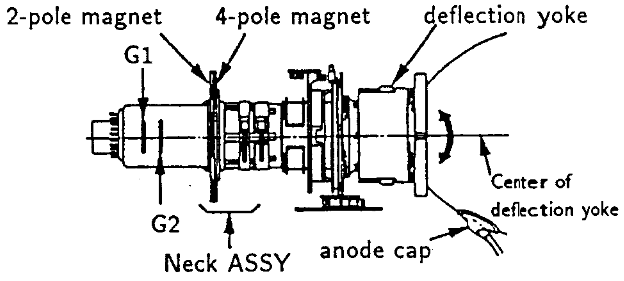


3-6. GREEN AND RED VERTICAL REGISTRATION

1. Cover a lens cap on the blue lens and receive a monoscope signal.
2. Set the NOR/TEST select switch to TEST and HATCH/BAR to HARTCH, rotate the red DY so that the horizontal center lines of green and red match, then fix the red DY.

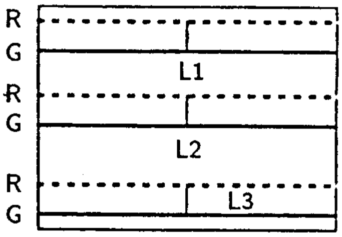


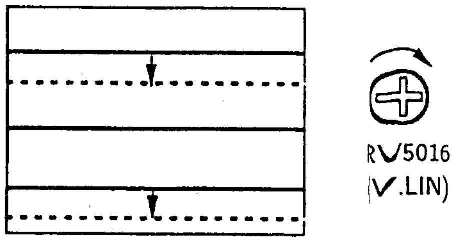
3. Align the red neck ass'y center to the red DY center and fix.


2-pole magnet
4-pole magnet
deflection yoke
G1
Center of deflection yoke
G2
Neck ASSY
anode cap

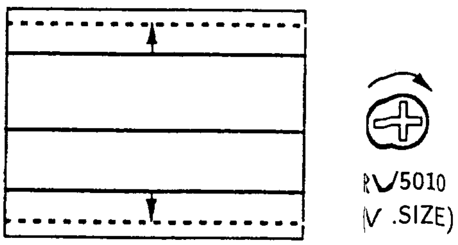
Note : Align the Neck Assy with the face of G3.

4. Rotate RV5016 (V LINE R) on the D board to equalize the slip quantities of the red and green horizontal lines.

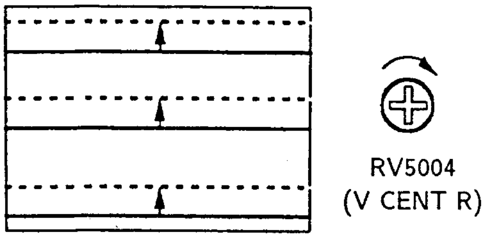

R
G
L1
R
G
L2
R
G
L3


RV5016
(V.LIN)

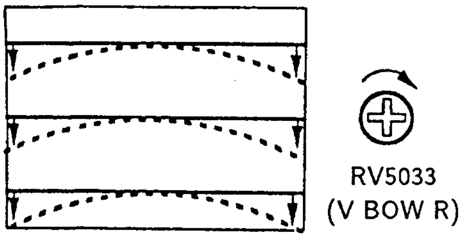
5. Rotate RV5010 (V SIZE R) on the D board to slightly reduce the vertical width of the picture.


RV5010
(V .SIZE)

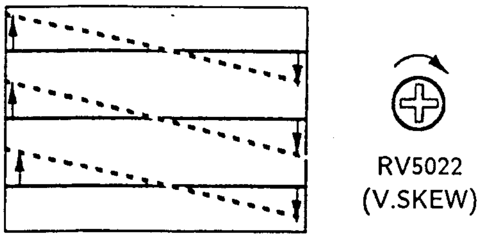
6. Rotate RV5004 (V CENT R) on the D board to V center to the screen center.



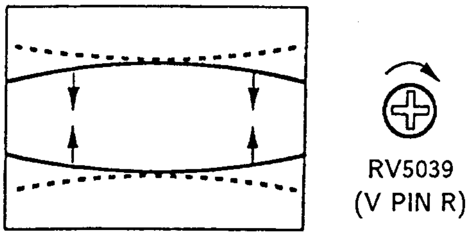
7. Rotate RV5033 (V BOW R) on the D board to overlap the green and red horizontal lines.



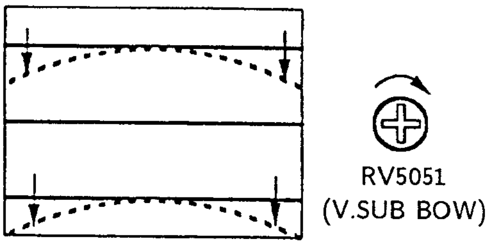
8. Rotate 5022 (V SKEW R) to make the red horizontal lines parallel to the green horizontal lines.



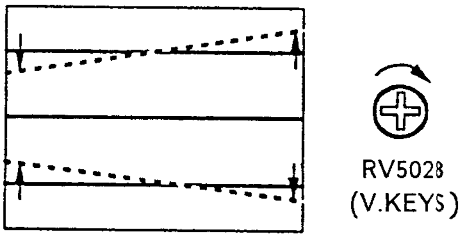
9. Repeat step 6.
10. Rotate RV5039 (V PIN R) on the D board to overlap the green and red horizontal.



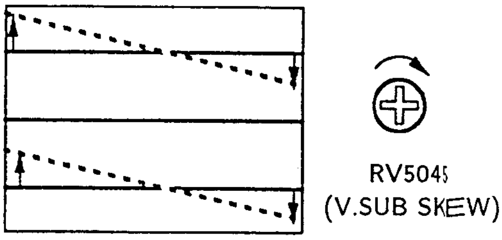
11. Rotate RV5051 (V SUB BOW R) on the D board to adjust the red horizontal lines in the same direction and quantity to the green horizontal lines. (Top and bottom edges.)



12. Repeat step 7.
13. Rotate RV5028 (V KEYS R) on the D board to adjust tilting of the red horizontal lines relative to the green horizontal lines at the top and bottom edges.



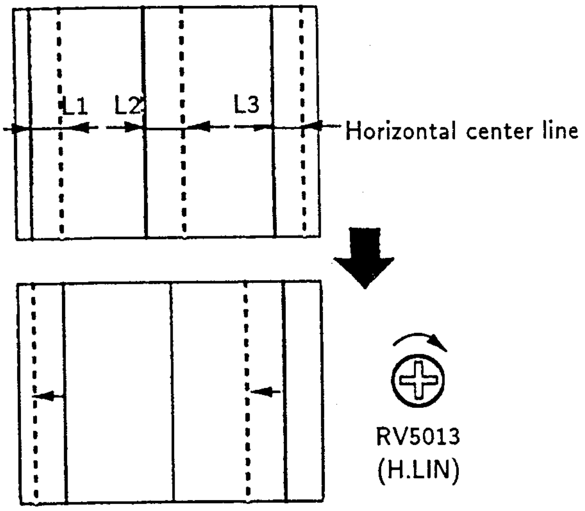
14. Rotate RV5045 (V SUB SKEW R) to equalize the tilting of the red horizontal lines relative to the green horizontal lines in top, bottom, and center.



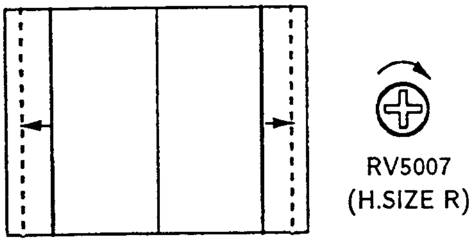
15. Repeat step 8.

3-7. GREEN AND RED HORIZONTAL REGISTRATION

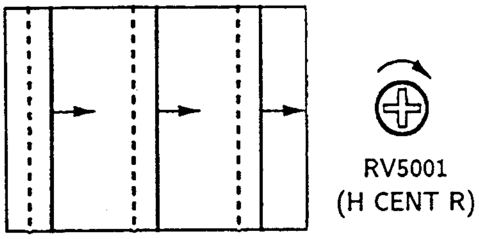
1. Rotate RV5013 (H LINE R) to equalize the slip quantities of the red and green vertical lines.


L1
L2
L3
Horizontal center line
RV5013
(H.LIN)

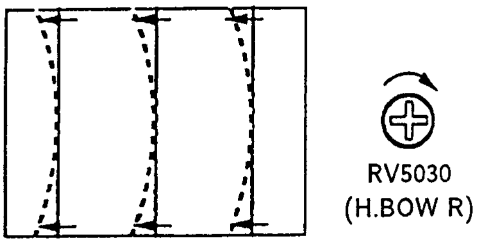
2. Rotate RV5007 (H SIZE R) to slightly reduce the left and right widths of the picture.


RV5007
(H.SIZE R)

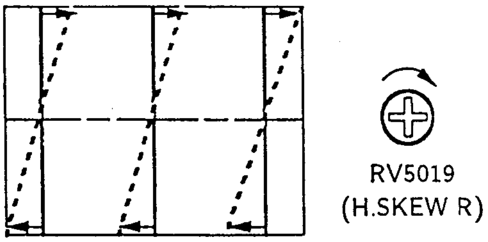
3. Rotate RV5001 (H CENT R) on the D board to H center to the screen center.


RV5001
(H CENT R)

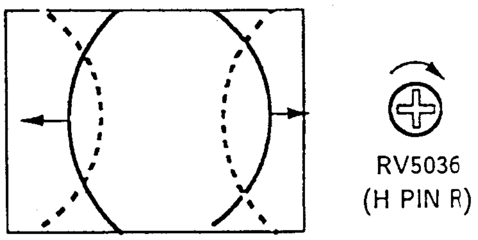
4. Rotate RV5030 (H BOW R) to overlap the green and red horizontal lines.


RV5030
(H.BOW R)

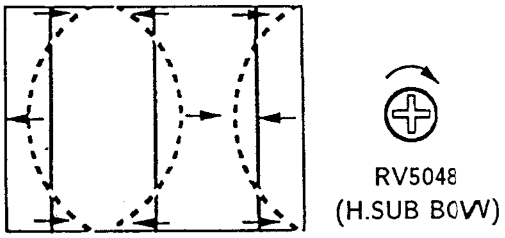
5. Rotate RV5019 (H SKEW R) to make the red and green vertical lines parallel.


RV5019
(H.SKEW R)

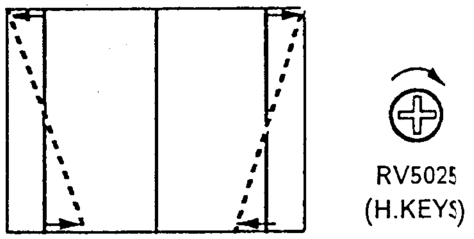
6. Repeat step 3.
7. Rotate RV5036 (H PIN R) on the D board to overlap the green and red vertical lines.


RV5036
(H PIN R)

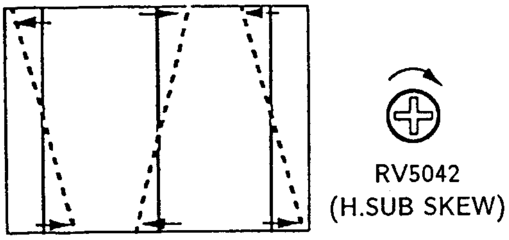
8. Rotate RV5048 (H SUB BOW R) to equalize the directions and quantities of the green and red vertical lines.


RV5048
(H.SUB BOW)

9. Repeat step 4.
10. Rotate RV5025 (H KEYS R) to adjust tilting of the red vertical lines relative to the green vertical lines at left and right edges.


RV5025
(H.KEYS)

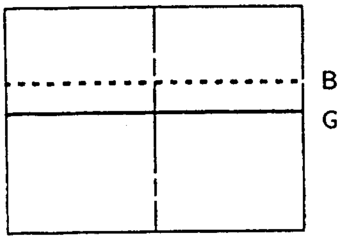
11. Rotate RV5042 (H SUB SKEW R) to adjust tilting of the red vertical lines relative to green vertical lines at left, right, and center.


RV5042
(H.SUB SKEW)

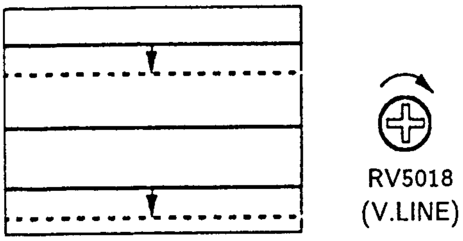
12. Repeat step 5.

3-8. GREEN AND BLUE VERTICAL REGISTRATION

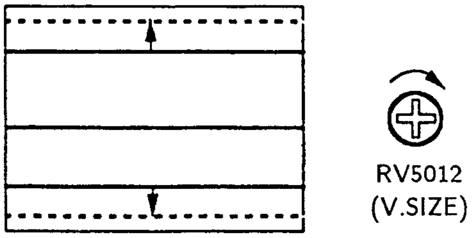
1. Cover a lens cap on the red lens and receive a monoscope signal.



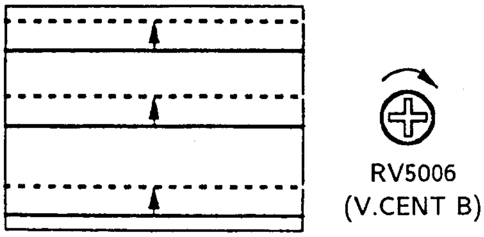
2. Set the NOR/TEST selector switch to TEST and HATCH/BAR switch to HATCH, rotate the blue DY to align the horizontal center lines of green and blue, then fix the blue DY.
3. Align the blue neck ass'y center to the blue DY center and fix them.
4. Rotate RV5018 (V LINE B) to equalize the slip quantities of the blue and green horizontal lines.


RV5018
(V.LINE)

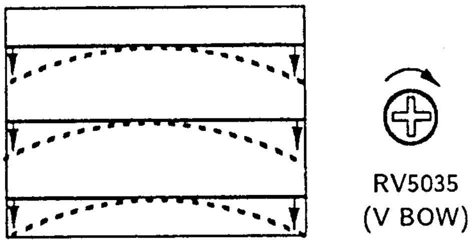
5. Rotate RV5012 (V SIZE B) to slightly reduce the widths at top and bottom of the picture.


RV5012
(V.SIZE)

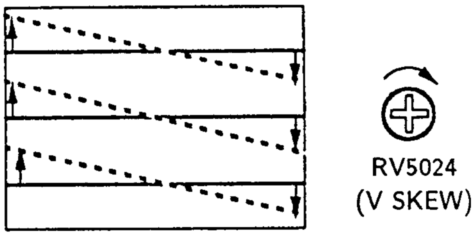
6. Rotate RV5006 (V CENT B) on the D board to V center to the screen center.


RV5006
(V.CENT B)

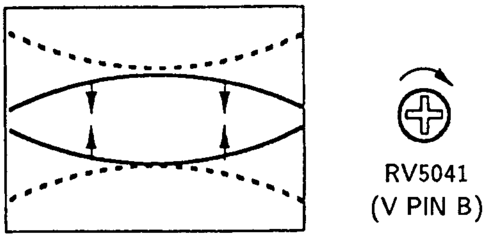
7. Rotate RV5035 (V BOW B) to overlap the green and blue horizontal lines.


RV5035
(V BOW)

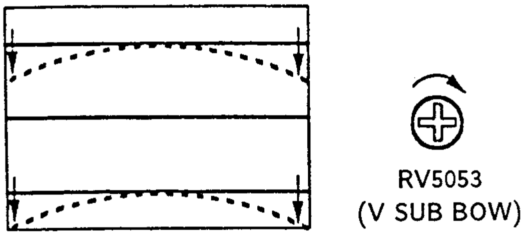
8. Rotate RV5024 (V SKEW B) to make the blue and green horizonal lines parallel.


RV5024
(V SKEW)

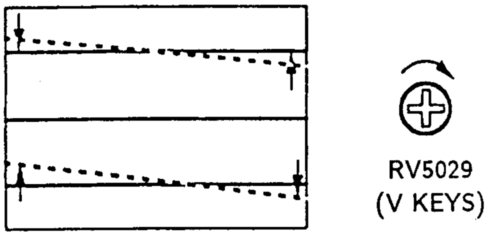
9. Repeat step 6.
10. Rotate RV5041 (V PIN B) on the D board to overlap the green and blue vertical lines.


RV5041
(V PIN B)

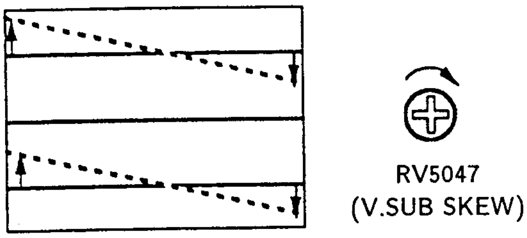
11. Rotate RV5053 (V SUB BOW B) to make the directions and quantities of the blue and green horizontal lines equal.


RV5053
(V SUB BOW)

12. Repeat step 7.
13. Rotate RV5029 (V KEYS B) to adjust tilting of the blue horizontal lines relative to the green horizontal lines at top and bottom.


RV5029
(V KEYS)

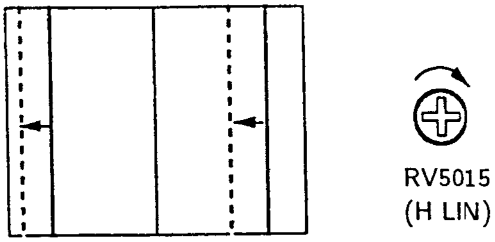
14. Rotate RV5047 (V SUB SKEW B) to equalize tilting of the blue horizontal lines relative to the top, bottom, and center green horizontal lines.


RV5047
(V.SUB SKEW)

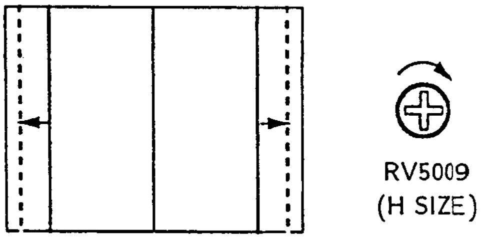
15. Repeat step 8.

3-9. GREEN AND BLUE HORIZONTAL REGISTRATION

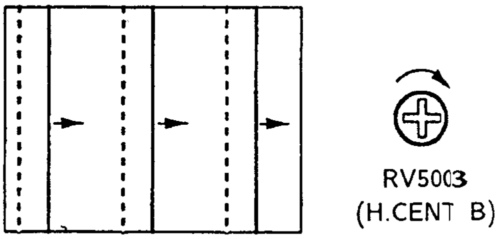
1. Rotate RV5015 (H LIN B) to equalize the slip quantities of the blue and green vertical lines.


RV5015
(H LIN)

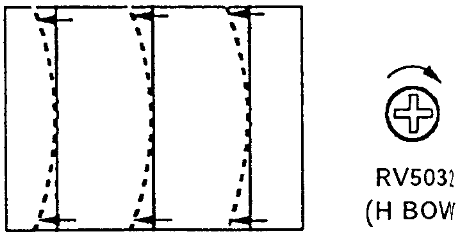
2. Rotate RV5009 (H SIZE B) and slightly reduce the left and right widths of the pictures.


RV5009
(H SIZE)

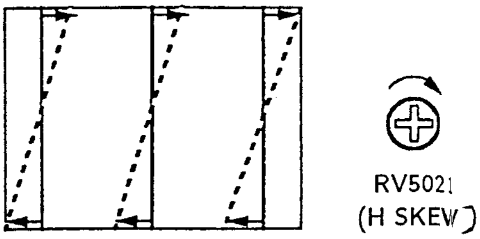
3. Rotate RV5003 (H CENT B) on the D board to H center to the screen center.


RV5003
(H.CENT B)

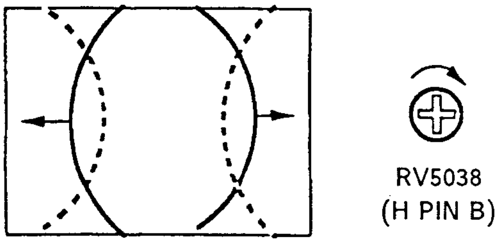
4. Rotate RV5032 (H BOW B) to overlap the green and blue horizontal lines.


RV5032
(H BOW)

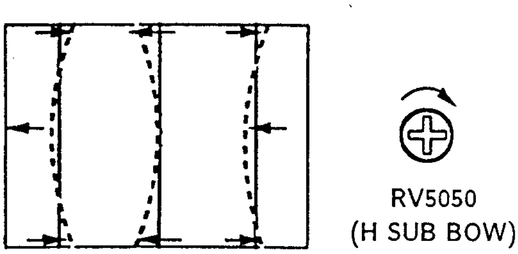
5. Rotate RV5021 (H SKEW B) to make blue and green vertical lines parallel.


RV5021
(H SKEW)

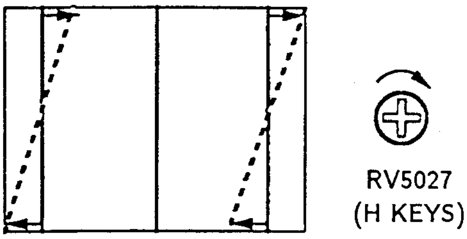
6. Repeat Step 3.
7. Rotate RV5038 (H PIN B) on the D board to overlap the green and blue horizontal lines.



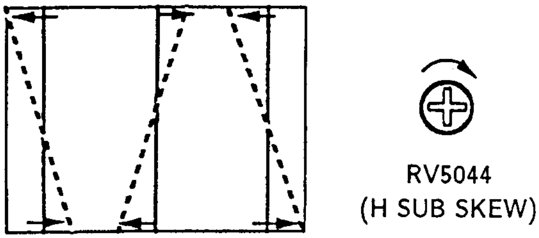
8. Rotate RV5050 (H SUB BOW B) to equalize directions and quantities of the green and blue vertical lines.



9. Repeat step 4.
10. Rotate RV5027 (H KEYS B) to adjust tilting of the blue vertical lines relative to the green vertical lines at the left and right edges.



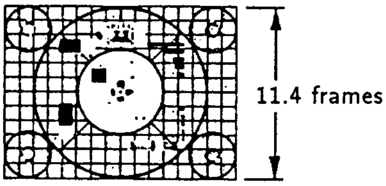
11. Adjust tilting of the blue vertical lines relative to the left, right, and center green vertical liens by rotating RV5044 (H SUB SKEW B).



12. Repeat step 5.

3-10. WHITE BALANCE, G2 ADJUSTMENT

1. Set R. BKG VR (RV4407), G BKG VR (RV4408) and B.BKG VR (RV4409) on D board to mechanical center.
2. Set R.DRIVE VR (RV4410) and B.DRIVE VR (RV4412) to mechanical center, and G.DRIVE VR (RV4411) to maximum.
3. Power the set, make BRIGHTNESS to the reset state, set PICTURE to minimum, and input monoscope signal.
4. Disconnect D-5 (G.OUT) and D-6 (B.OUT) on D board and make the screen red only.
5. Adjust with the screen VR on the focus pack so that 20 IRE of the monoscope signal slightly glows.
6. In case of green or blue, adjust in the same procedure as the item 5 with each of connector D-5 or D-8 on D board.



monoscope signal

3-11. WHITE BALANCE ADJUSTMENT

1. Input white signal and set BRIGHTNESS and PICTURE to minimum.
2. Adjust white balance with R. BKG VR (RV4407), G. BKG VR (RV4408) and B. BKG VR (RB 4409) on D board.
3. Set BRIGHTNESS and PICTURE to maximum.
4. Adjust white balance with R.DRIVE VR (RV 4410), G. DRIVE VR (RV4411) and B. DRIVE VR (RV4412) on D board, then set G. DRIVE VR close to maximum position.

SECTION 4

SAFETY RELATED ADJUSTMENTS

HV-HOLD DOWN AND HV-REGULATOR ADJUSTMENT

When replacing the following components, make the HV, HOLD DOWN adjustments.

IC804, Q804, D806, D808, C819, R807, R829, R830, R831, R832, R833, R837, R838, R839, R840, R841, HV BLOCK	(◪) P board

When replacing the following components, make the HV, REGULATOR adjustments.

IC803, IC805, D807, C818, R824, R825, R826, R827, R838, R834, R835, R836, R864, R865, HV BLOCK	(◪) P board

B+ VOLTAGE CONFIRMATION

The following adjustment should always be performed when replacing IC601 and R621.

(1) Supply AC130V from a variable auto-transformer.
(2) Receive a monoscope signal.
(3) Set the PICTURE control to maximum and the BRIGHTNESS control to reset.
(4) Connect a digital multimeter to pin ⑨ (B+line) of the G-2 connector on the G board.
(5) Confirm the voltage on digital multimeter is 115.0±2.0 VDC.

* Using a high-tension meter

1. HV-HOLD DOWN CIRCUIT (⧓R830, R831)

(1) Receive a completely white signal and set the PICTURE and BRIGHTNESS controls to maximum.
* Make sure sync is being applied.
(2) Make sure that the power switch is turned off.
(3) Connect the positive lead of the high-tension meter to the HV block and the negative lead to the chassis ground.
(4) Disconnect the R826 and R827 resistances from the P board and connect a variable resistor Ⓐ (50 kΩ) between the terminals.
* Set the variable resistor Ⓐ to minimum.
(5) Disconnect the R830 and R831 resistances from the P board and connect a variable resistor Ⓑ (50 kΩ) between the terminals.
* Set the variable resistor to minimum.
(6) Turn on the power supply and adjust the variable resistor Ⓐ so that the high-tension meter indicates 33.5±0.5 KVDC.
(7) Slowly turn the variable resistor Ⓑ and set at the position where the HV-HOLD DOWN circuit operates and raster disappears.

* When a high-tension meter is not available.

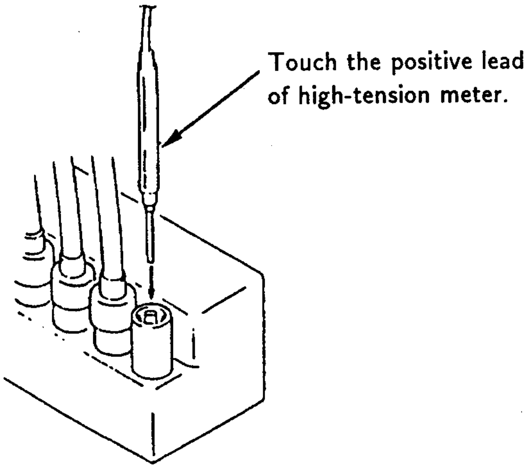
2. HV-REGULATOR CIRCUIT (⧓R826, R827)

(1) Receive a completely white signal and set the PICTURE and BRIGHTNESS controls to maximum.
  * Make sure sync is applied.
(2) Make sure that the power switch is turned off.
(3) Disconnect the R826 and R827 resistance from the P board and connect a variable resistor Ⓕ (50 kΩ) between the terminals.
  * Set the variable resistor to maximum.
(4) Connect a digital multimeter between D801 (cathode) and chassis ground.
(5) Turn on the power supply and adjust the variable resistor Ⓕ so that the multimeter indicates DC125.0±0.5V.
(6) Turn off the power supply, disconnect variable resistor Ⓕ and measure the resistance value.
(7) Select and mount resistors R826 and R827 so that the total series resistance is equal to the value measured in item (6).
(8) Turn on the power supply and check if the D801 cathode voltage is DC125±1.0V.
(9) Turn off the power supply and disconnect the digital multimeter.

(8) Turn off the power supply, disconnect variable resistor Ⓑ and measure the resistance value using a digital multimeter.

(9) Select and mount resistors R830 and R831 so that the total series resistance is equal to the value measured in item (8).

(10) Turn on the power supply, and slowly turn variable resistor Ⓐ and confirm that the voltage is 33.5±0.5 kV whereby the raster disappears during operation of HV-HOLD DONW circuit.



* Using a high-tension meter.

2. HV-REGULATOR CIRCUIT (⧓R826, R827)

(1) Receive a dot signal and set the PICTURE and BRIGHTNESS controls to minimum.
  * Make sure sync is applied.

(2) Make sure that the power switch is turned off.

(3) Connect the positive lead of the high-tension meter to the HV block and the negative lead to the chassis ground.

(4) Disconnect the R826 and R827 resistances from the P board and connect a variable resistor Ⓒ (50kΩ) between the terminals.
  * Set the variable resistor to maximum.

(5) Turn on the power supply and adjust the variable resistor Ⓒ so that the high-tension meter indicates 31.5±0.5 KV.

(6) Disconnect variable resistor Ⓒ and measure the resistance value using a digital multimeter.

(7) Select and mount resistors R826 so that the total series resistance is equal to the value measured in item (6).

(8) Turn on the power supply and check if the high-tension meter indicates 31.5±0.5 kV.

(9) Turn off the power supply, disconnect the high-tension meter and return to the original status.

* When a high-tension meter is not available.

1. HV-HOLD DOWN CIRCUIT (⧓R830, R831)

(1) Receive a completely white signal and set the PICTURE and BRIGHTNESS controls to maximum.
  * Make sure sync is applied.

(2) Make sure that the power switch is turned off.

(3) Disconnect the R826 and R827 resistance from the P board and connect a variable resistor Ⓓ (50 kΩ) between the terminals.
  * Set the variable resistor to maximum.

(4) Disconnect the R830 and R831 resistances from the P board and connect a variable resistor Ⓔ (50 kΩ) between the terminals.
  * Set the variable resistor to minimum.

(5) Connect a digital multimeter between D801 (cathode) and chassis ground.

(6) Turn on the power supply and adjust the variable resistor Ⓓ so that the multimeter indicates DC134.0V.

(7) Turn the variable resistor Ⓔ and set to the position where the HV-HOLD DOWN circuit operates and raster disappears.

(8) Turn off the power supply, disconnect variable resistor Ⓔ and measure the resistance value.

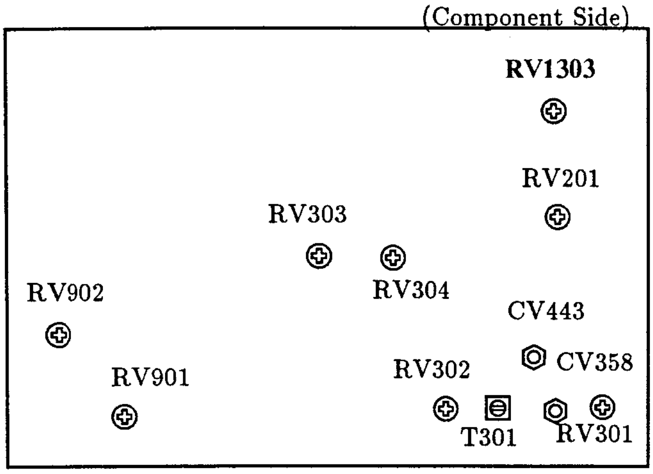
(9) Select and mount resistors R830 and R831 so that the total series resistance is equal to the value measured in item (8).

(10) Turn on the power supply and adjust the variable resistor Ⓓ so that the multimeter indicates DC134.0±1.0V the instant the HV-HOLD DOWN circuit operates and raster disappears.

SECTION 5

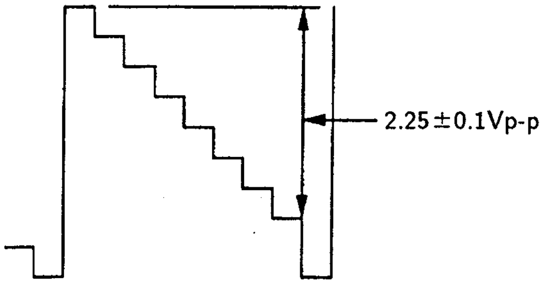
CIRCUIT ADJUSTMENTS

5-1. A BOARD ADJUSTMENTS


(Component Side)
RV1303
RV201
RV303
RV304
RV902
CV443
RV901
RV302
CV358
T301
RV301

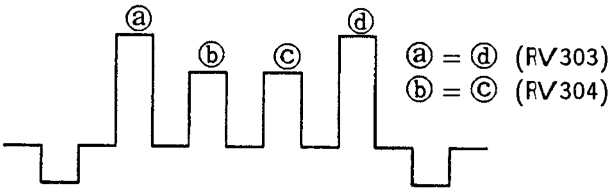
SUB CONT ADJUSTMENT (RV201)

1. Input the NTSC color-bar signal.
2. • PICTURE ··············· Maximum
   • BRIGHTNESS ········· Center
   • COLOR ·················· Minimum
3. Connect an oscilloscope to TP-1 on the A board.
4. Disconnect the D-4, D-5 and D-6 connector in the D board.(ABL OFF)
5. Adjust RV201 so that voltage is 2.25±0.1 Vp-p.



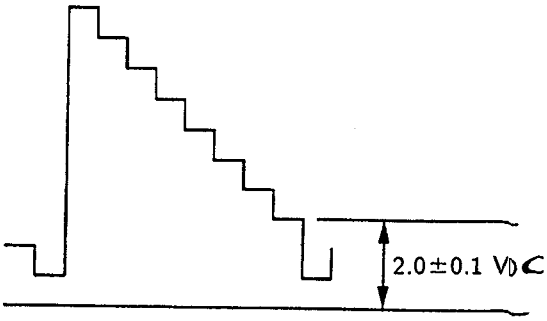
SUB COL, SUB HUE ADJUSTMENT (RV303, RV304)

1. Input the NTSC color-bar signal.
2. • PICTURE ··············· Maximum
   • COLOR ·················· RESET
   • HUE ······················ RESET
   • SHARPNESS ········· RESET
3. Connect an oscilloscope to TP-1 on the A board.
4. Disconnect the D-4, D-5 and D-6 connector in the D board.(ABL OFF)
5. Adjust RV303 (SUB COL) so that the ⓐ coincides with ⓓ as shown in figure.
6. Adjust RV304 (SUB HUE) so that the ⓑ coincides with ⓒ as shown in figure.


ⓐ
ⓑ
ⓒ
ⓓ
ⓐ = ⓓ (RV303)
ⓑ = ⓒ (RV304)

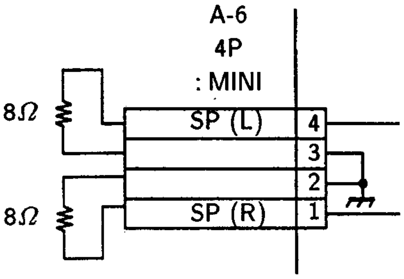
SUB BRT ADJUSTMENT (RV1303)

1. Input the NTSC color-bar signal.
2. • PICTURE ··············· Maximum
   • BRIGHTNESS ········· Center
   • COLOR ·················· Minimum
3. Connect an oscilloscope to TP-1 on the A board.
4. Disconnect the D-4, D-5 and D-6 connector in the D board.
5. Adjust RV1303 so that voltage is 2.0±0.1 Vp-p.



R, L LEVEL ADJUSTMENT (RV901, RV902)

1. Input the 400Hz (100% modulation) sound signal.
2. Connect the 8Ω resistor to pin ① (SP R) and pin ④ (SP L) of A6 connector and ground.
3. Connect the LEVEL meter to 8Ω resistor.
4. Maximum to VOLUME.
5. Adjust RV901 (L LEVEL) and RV902 (R LEVEL) to obtain 22W reading on the LEVEL meter.



A • P • C ADJUSTMENT (CV443) (PAL)

1. Input the PAL color-bar signal.
2. Set the PIC, COL, and BRT controls to normal.
3. Short circuit between TP-3 and TP-2 of IC301 with jumper.
4. Adjust CV443 for suitable color intensity.
5. Remove a jumper.

REF OSC 3.58 ADJUSTMENT (CV358) (NTSC 3.58)

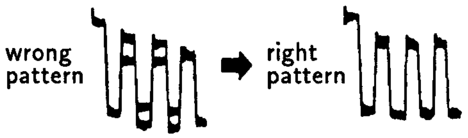
1. Short circuit between TP-3 and TP-2 of IC301 with a jumper.
2. Set the PIC, COL and BRT controls to normal.
3. Input the NTSC 3.58 color-bar signal.
4. Adjust CV358 for suitable color intensity.
5. Remove the jumper.

ANTI PAL, LINE CRAWLING ADJUSTMENT (RV301,RV302,T301)

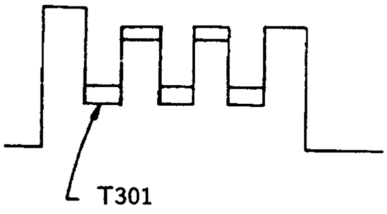
- ANTI PAL ADJUSTMENT

1. Input the PAL SPECIAL color-bar signal.
2. Set the PIC, COL and BRT controls to normal.
3. Connect the oscilloscope to TP-1(B.OUT).
4. Adjust RV301 (DELAY) and RV302 (PHASE) to obtain the waveform as shown below.

- LINE CRAWLING ADJUSTMENT

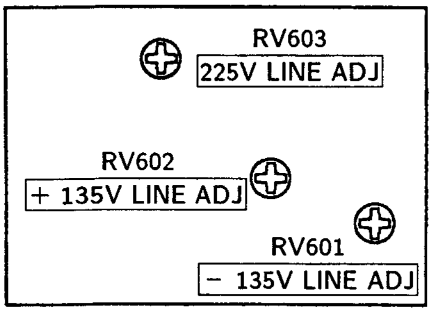


1. Input the PAL color-bar signal.
2. Set the PIC, COL and BRT controls to normal.
3. Connect the oscilloscope to TP-1(B.OUT).
4. Adjust T301 for minimum line crawling.



5-2. G BOARD ADJUSTMENTS

(Component Side)


RV603
225V LINE ADJ
RV602
+ 135V LINE ADJ
RV601
− 135V LINE ADJ

− 135V LINE ADJUSTMENT (RV601)

1. Input the color-bar signal.
2. Connect a digital multimeter to emitter of Q604.
3. Adjust RV601 so that voltage is −135V±1.0V.

+ 135V LINE ADJUSTMENT (RV602)

1. Input the color-bar signal.
2. Connect a digital multimeter to emitter of Q603.
3. Adjust RV602 so that voltage is +135V±1.0V.

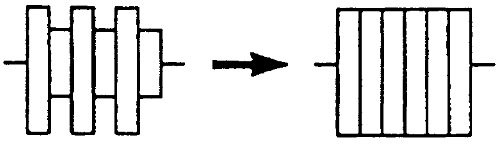
225V LINE ADJUSTMENT (RV603)

1. Input the color-bar signal.
2. Connect a digital multimeter to emitter of Q614.
3. Adjust RV603 so that voltage is 225V±0.5V.

5-3. SC BOARD ADJUSTMENTS

BELL FILTER ADJUSTMENT (T403)

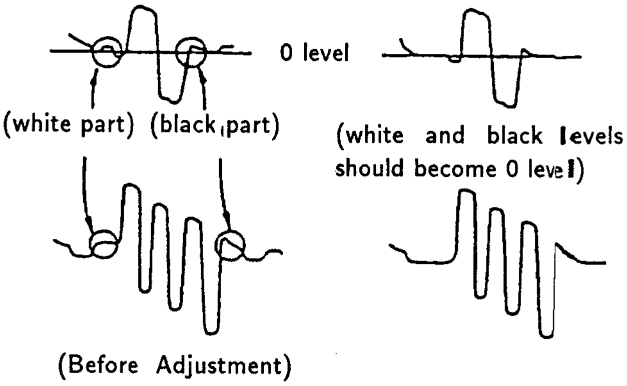
1. Input the SECAM COLOR BAR signal.
2. Connect an oscilloscope to the TP-6.
3. Adjust T403 so that waveform becomes the flat.



Before Adjustment After Adjustment

SECAM DISCRI ADJUSTMENT (L401,L402)

1. Input the SECAM COLOR BAR signal.
2. Connect an oscilloscope to TP-4.
   Adjust L401 so that white and black parts of the waveform of TP-4 becomes 0 level.
3. Connect an oscilloscope to TP-5.
4. Adjust L402 so that white and black parts of the waveform of TP-5 becomes 0 level.


0 level
(white part)
(black part)
(white and black levels should become 0 level)
(Before Adjustment)

5-4. U BOARD ADJUSTMENTS

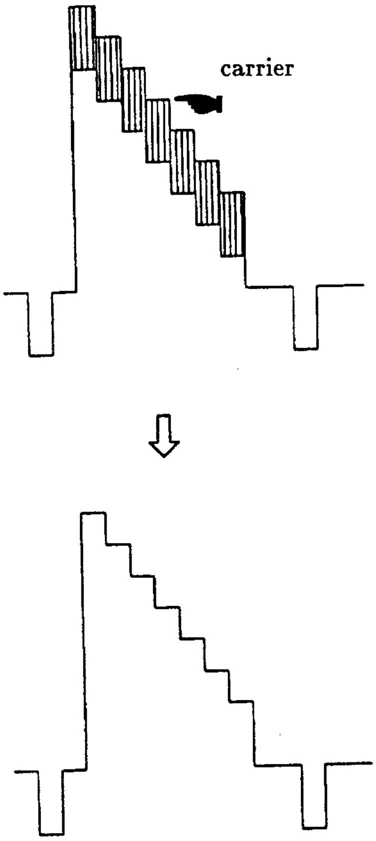
Y TRAP ADJUSTMENT (T8002,T8001)

- PAL ADJUSTMENT

1. Input the PAL color-bar signal.
2. Set the PIC, COL and BRT controls to normal.
3. Connect the oscilloscope to TP-10.
4. Adjust T8002 to obtain the waveform as shown below.

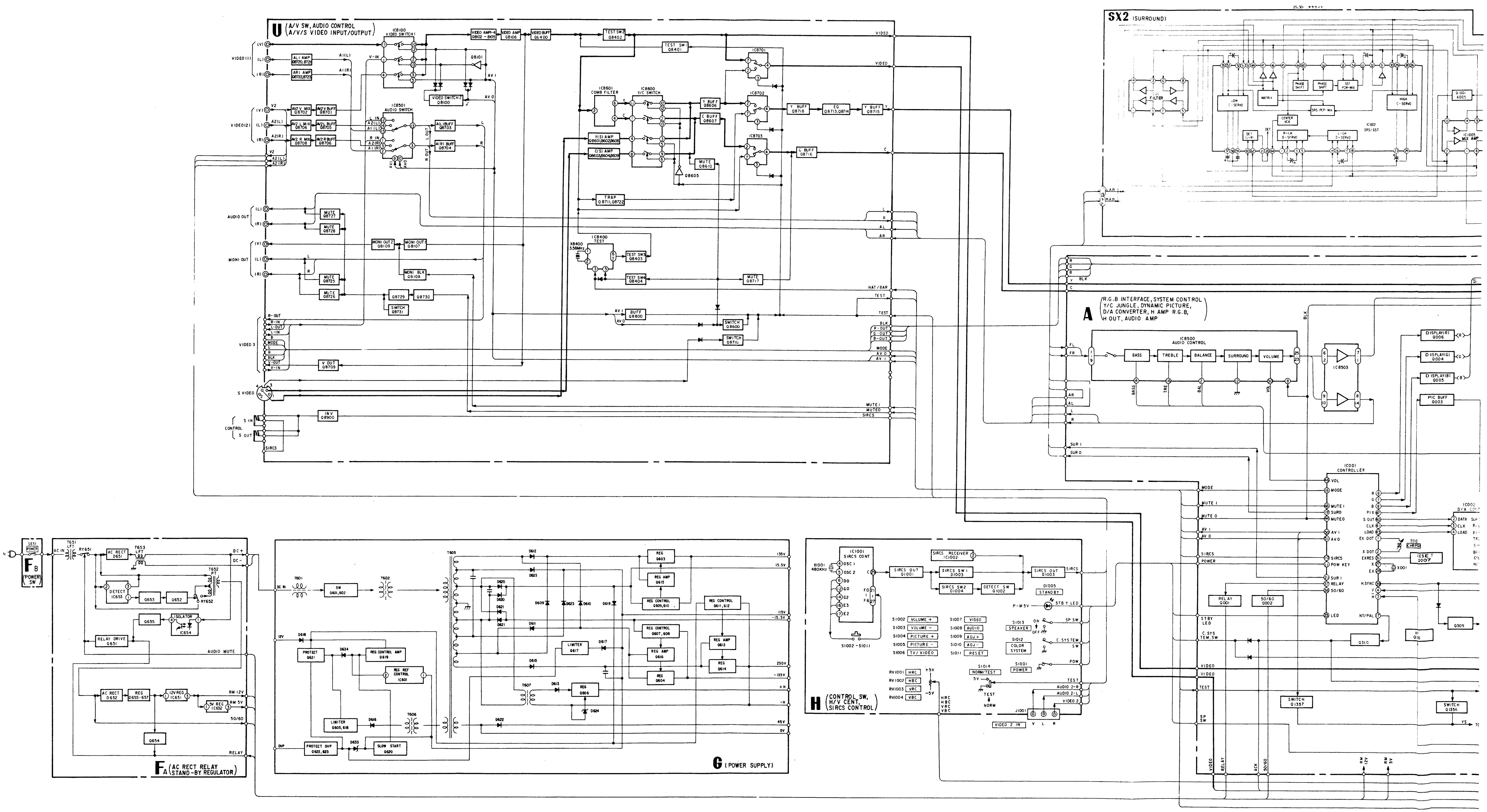
- SECAM ADJUSTMENT

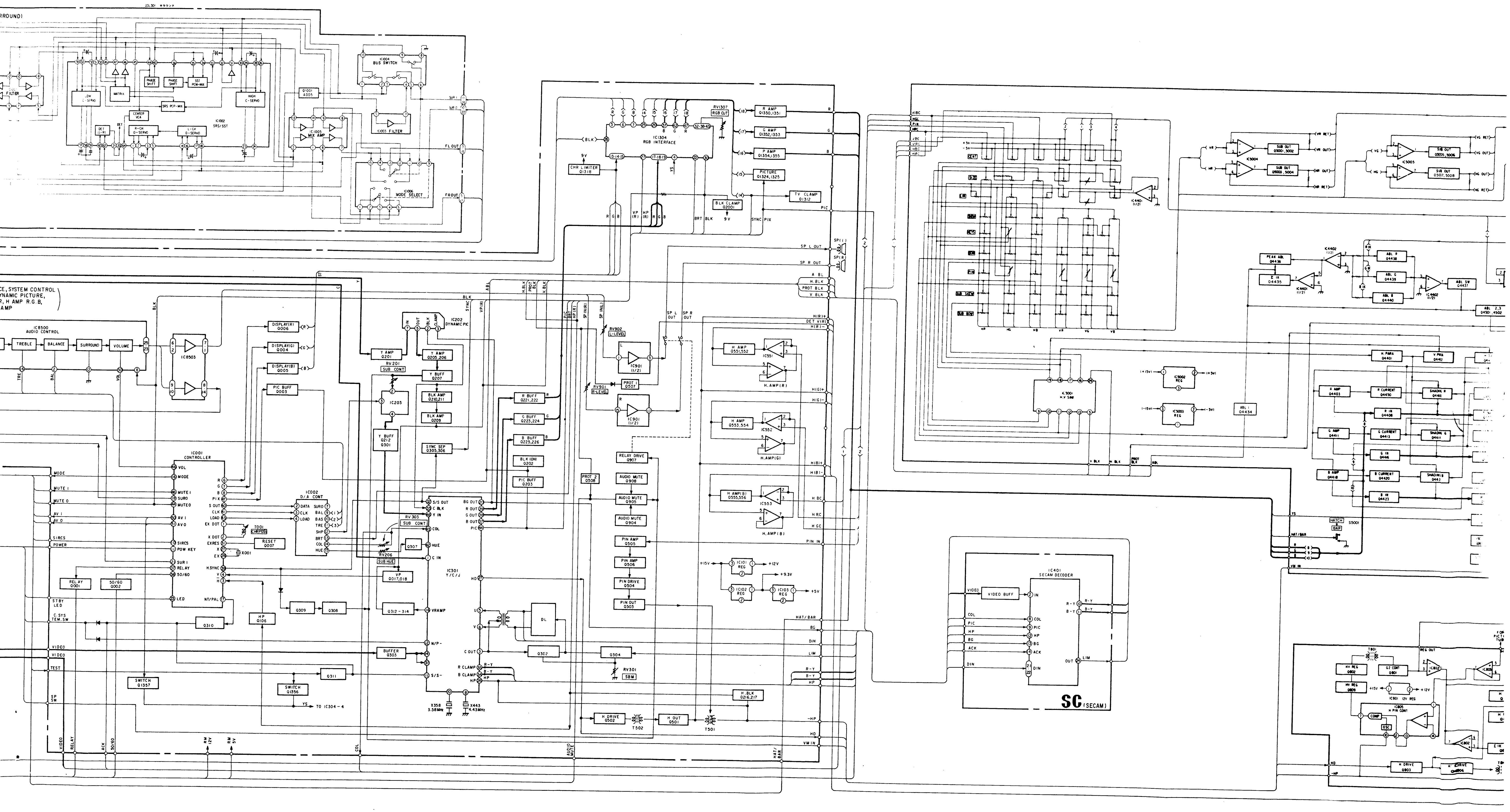
1. Input the SECAM color-bar signal.
2. Set the PIC, COL and BRT controls to normal.
3. Connect the oscilloscope to TP-10.
4. Adjust T8001 to obtain the waveform as shown below.

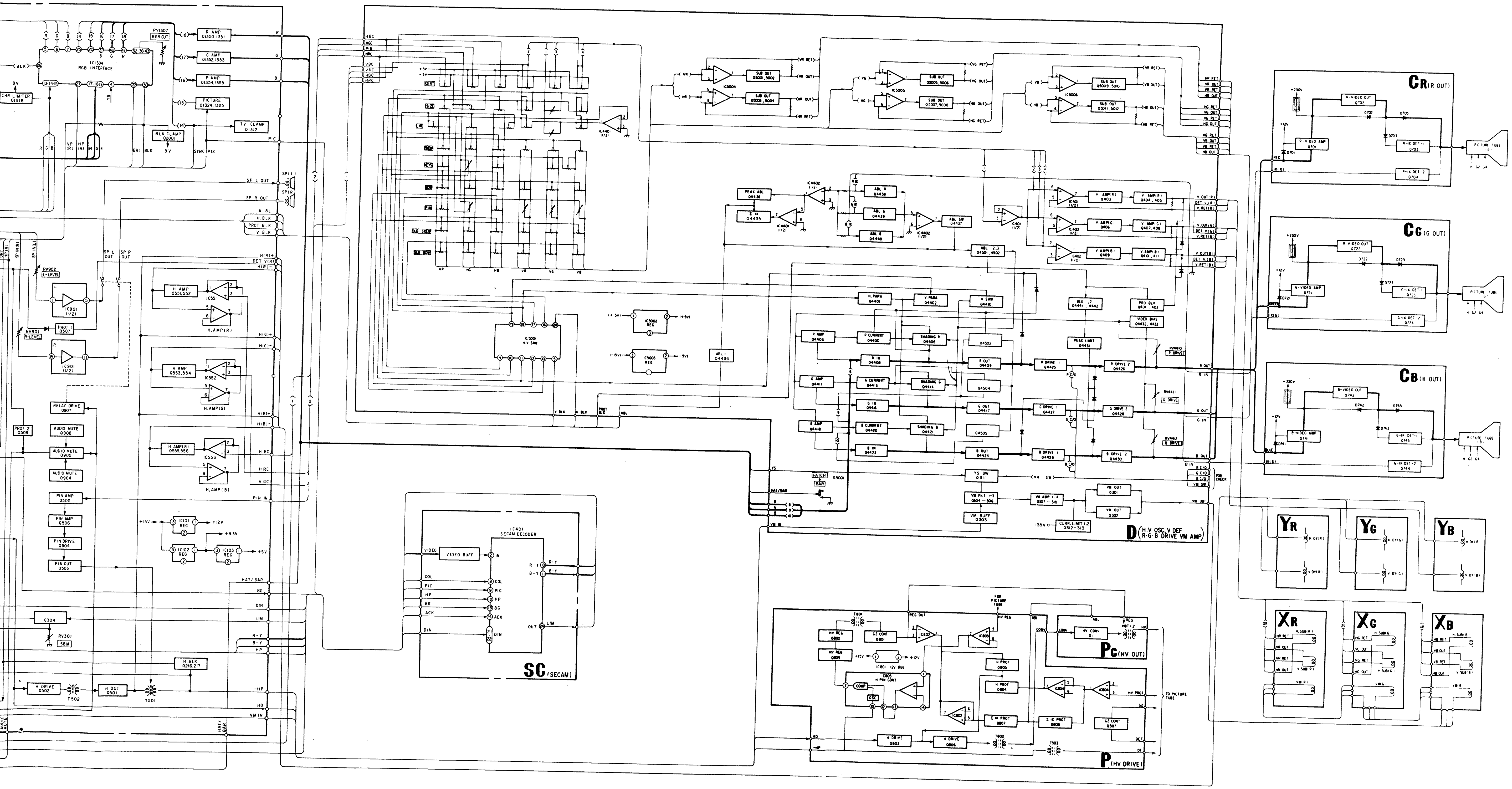


SECTION 6
DIAGRAMS

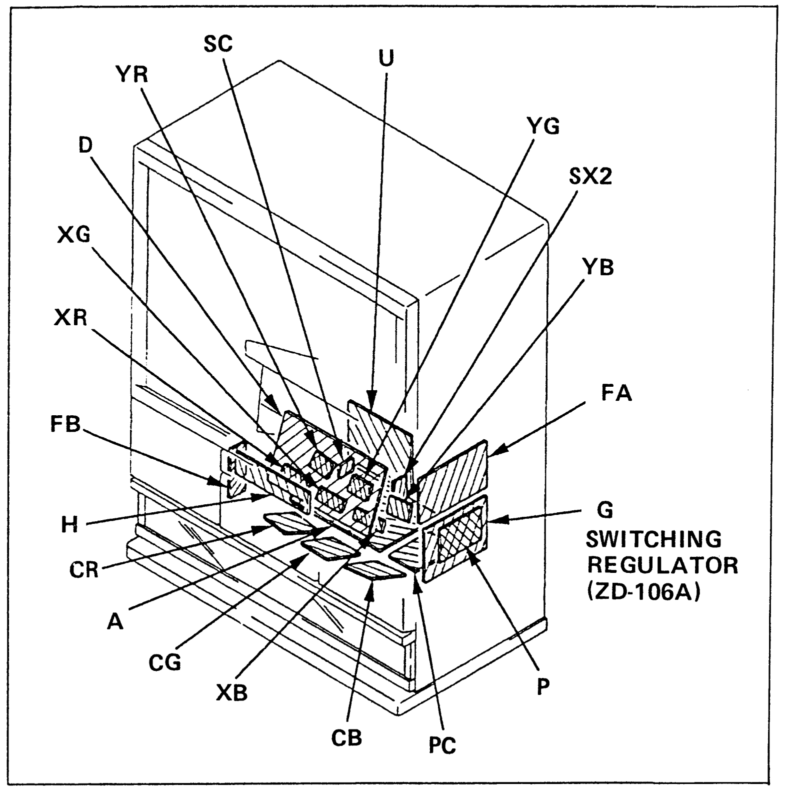
6-1. BLOCK DIAGRAM


U (A/V SW, AUDIO CONTROL A/V/S VIDEO INPUT/OUTPUT)
VIDEO(1)
VIDEO(2)
VIDEO 3
AUDIO OUT
MONI OUT
S VIDEO
CONTROL
IC8100 VIDEO SWITCH1
IC8501 AUDIO SWITCH
IC8601 COMB FILTER
IC8600 Y/C SWITCH
IC8701
IC8702
IC8703
IC8400 TEST
X8400 3.58MHz
SX2 (SURROUND)
IC1002 SRS-SST
A (R.G.B INTERFACE, SYSTEM CONTROL Y/C JUNGLE, DYNAMIC PICTURE, D/A CONVERTER, H AMP R.G.B, H OUT, AUDIO AMP)
IC8500 AUDIO CONTROL
BASS
TREBLE
BALANCE
SURROUND
VOLUME
IC8503
IC1001 CONTROLLER
IC1002 D/A CONV
FB (POWER SW)
FA (AC RECT RELAY STAND-BY REGULATOR)
G (POWER SUPPLY)
H (CONTROL SW, H/V CENT, SIRCS CONTROL)
IC1001 SIRCS CONT
X1001 480KHz
S1002 VOLUME +
S1003 VOLUME −
S1004 PICTURE +
S1005 PICTURE −
S1006 TV/VIDEO
S1007 VIDEO
S1008 AUDIO
S1009 ADJ +
S1010 ADJ −
S1011 RESET
RV1001 HRC
RV1002 HBC
RV1003 VRC
RV1004 VBC
S1014 NORM/TEST
S1001 POWER
J1001 VIDEO 2 IN


IC1004 BUS SWITCH
Q1001 ADDS
IC1003 FILTER
IC1005 MIX AMP
IC1006 MODE SELECT
IC1002 SRS/SST
L-CH C-SERVO
HIGH C-SERVO
MATRIX
PHASE SHIFT
SST PCM-MIX
SRS PCM-MIX
CENTER VCA
R-CH D-SERVO
L-CH D-SERVO
FL OUT
FR OUT
IC1304 RGB INTERFACE
RV1307 RGB CUT
R AMP Q1350,1351
G AMP Q1352,1353
P AMP Q1354,1355
PICTURE Q1324,1325
TV CLAMP Q1312
BLK CLAMP Q2001
CHR LIMITER Q1318
SP L OUT
SP R OUT
H.BLK
PROT BLK
V BLK
IC8500 AUDIO CONTROL
TREBLE
BALANCE
SURROUND
VOLUME
IC8503
DISPLAY(R) Q006
DISPLAY(G) Q004
DISPLAY(B) Q005
PIC BUFF Q003
IC001 CONTROLLER
IC002 D/A CONT
RESET Q007
T001 CHR.POS
X001
RELAY Q001
50/60 Q002
Q310
HP Q106
SWITCH Q1357
SWITCH Q1356
Q311
Y AMP Q201
RV201 SUB CONT
IC202 DYNAMIC PIC
Y AMP Q205,206
Y BUFF Q207
BLK AMP Q210,211
BLK AMP Q209
IC203
Y BUFF Q212 Q301
SYNC SEP Q305,306
R BUFF Q221,222
G BUFF Q223,224
B BUFF Q225,226
BLK (ON) Q202
PIC BUFF Q203
RV303 SUB CONT
Q307
RV206 SUB HUE
VP Q017,018
IC301 Y/C/J
Q309
Q308
Q312-314
BUFFER Q303
Q302
Q304
RV301 SBB
DL
X358 3.58MHz
X443 4.43MHz
PROT 2 Q508
RV902 L-LEVEL
RV901 R-LEVEL
IC901
PROT 1 Q507
RELAY DRIVE Q907
AUDIO MUTE Q908
AUDIO MUTE Q905
AUDIO MUTE Q904
PIN AMP Q505
PIN AMP Q506
PIN DRIVE Q504
PIN OUT Q503
H DRIVE Q502
T502
H OUT Q501
T501
H.BLK Q216,217
H AMP Q551,552
IC551
H.AMP(R)
H AMP Q553,554
IC552
H.AMP(G)
H AMP(B) Q555,556
IC553
H.AMP(B)
IC101 REG
IC102 REG
IC103 REG
+15V
+12V
+9.3V
+5V
HAT/BAR
IC401 SECAM DECODER
VIDEO BUFF
SC (SECAM)
IC5004
SUB OUT Q5001,5002
SUB OUT Q5003,5004
IC5005
SUB OUT Q5005,5006
SUB OUT Q5007,5008
IC4401
PEAK ABL Q4436
E IR Q4435
IC4402
ABL R Q4438
ABL G Q4439
ABL B Q4440
ABL SW Q4437
ABL 2,3 Q4501,4502
IC5001 H.V SW
IC5002 REG
IC5003 REG
ABL Q4434
H PARA Q4401
V PARA Q4412
R AMP Q4403
R CURRENT Q4404
R IR Q4408
G AMP Q4411
G CURRENT Q4413
G IR Q4416
B AMP Q4418
B CURRENT Q4420
B IR Q4423
SHADING R
SHADING G
SHADING B
HATCH S5001
BAR
T801
HV REG Q802
HV REG Q805
G2 CONT Q801
IC801 12V REG
IC805 H PIN CONT
IC802
IC803
H DRIVE Q803
H DRIVE Q806


IC1304
RGB INTERFACE
RV1307
RGB OUT
R AMP
Q1350,1351
G AMP
Q1352,1353
B AMP
Q1354,1355
PICTURE
Q1324,1325
TV CLAMP
Q1312
BLK CLAMP
Q2001
CHR LIMITER
Q1318
SP L OUT
SP R OUT
A BL
H.BLK
PROT BLK
V BLK
H(R)+
DET V(R)
H(R)-
RV902
L-LEVEL
IC901 (1/2)
PROT 1
Q507
RV901
R-LEVEL
H AMP
Q551,552
IC551
H.AMP(R)
H AMP
Q553,554
IC552
H.AMP(G)
H AMP(B)
Q555,556
IC553
H.AMP(B)
RELAY DRIVE
Q907
PROT 2
Q508
AUDIO MUTE
Q908
AUDIO MUTE
Q905
AUDIO MUTE
Q904
PIN AMP
Q505
PIN AMP
Q506
PIN DRIVE
Q504
PIN OUT
Q503
IC101 REG
IC102 REG
IC103 REG
+15V
+12V
+9.3V
+5V
Q304
RV301
58M
H.BLK
Q216,217
H DRIVE
Q502
T502
H OUT
Q501
T501
HAT/BAR
BG
DIN
LIM
R-Y
B-Y
HP
HD
VM IN
IC401
SECAM DECODER
VIDEO BUFF
SC (SECAM)
IC5001
H.V SAW
IC5002
REG
IC5003
REG
IC4401
IC5004
SUB OUT
Q5001,5002
SUB OUT
Q5003,5004
IC5005
SUB OUT
Q5005,5006
SUB OUT
Q5007,5008
IC5006
SUB OUT
Q5009,5010
SUB OUT
Q5011,5012
PEAK ABL
Q4436
E IN
Q4435
IC4402
ABL R
Q4438
ABL G
Q4439
ABL B
Q4440
ABL SW
Q4437
IC401
IC402
V AMP(R)
Q403
V AMP(R)
Q404,405
V AMP(G)
Q406
V AMP(G)
Q407,408
V AMP(B)
Q409
V AMP(B)
Q410,411
ABL 2,3
Q4501,4502
H PARA
Q4401
V PARA
Q4402
H SAW
Q4410
BLK 1,2
Q4441,4442
PRO BLK
Q401,402
VIDEO BIAS
Q4432,4433
PEAK LIMIT
Q4431
ABL 1
Q4434
R AMP
Q4403
R CURRENT
SHADING R
Q4406
R IN
Q4408
R OUT
Q4409
R DRIVE 1
Q4425
R DRIVE 2
Q4426
G AMP
Q4411
G CURRENT
Q4413
SHADING G
Q4414
G IN
Q4416
G OUT
Q4417
G DRIVE 1
Q4427
G DRIVE 2
Q4428
B AMP
Q4418
B CURRENT
Q4420
SHADING B
Q4421
B IN
Q4423
B OUT
Q4424
B DRIVE 1
Q4429
B DRIVE 2
Q4430
RV4410
R DRIVE
RV4411
G DRIVE
RV4412
B DRIVE
HATCH
BAR
S5001
YS SW
Q311
VM FILT 1-3
Q304-306
VM BUFF
Q303
VM AMP 1-4
Q307-310
VM OUT
Q301
VM OUT
Q302
135V
CURR. LIMIT 1,2
Q312-313
FOR CHECK
D (H.V OSC, V DEF / R·G·B DRIVE VM AMP)
CR (R OUT)
R-VIDEO OUT
Q702
R-VIDEO AMP
Q701
R-IK DET-1
Q703
R-IK DET-2
Q704
PICTURE TUBE
CG (G OUT)
G VIDEO OUT
Q722
G-VIDEO AMP
Q721
G-IK DET-1
Q723
G-IK DET-2
Q724
CB (B OUT)
B-VIDEO OUT
Q742
B-VIDEO AMP
Q741
G-IK DET-1
Q743
G-IK DET-2
Q744
+230V
+12V
YR
YG
YB
XR
XG
XB
FOR PICTURE TUBE
HV REG
Q802
HV REG
Q809
G2 CONT
Q801
IC802
IC803
IC805
H PIN CONT
IC801
12V REG
COMP
OSC
H PROT
Q805
H PROT
Q804
IC804
E-IK PROT
Q807
E-IK PROT
Q808
G2 CONT
Q507
H DRIVE
Q803
H DRIVE
Q806
T801
T802
T803
TO PICTURE TUBE
P (HV DRIVE)
HV CONV
Q1
PC (HV OUT)

6-2. CIRCUIT BOARDS LOCATION


SC
YR
U
YG
D
SX2
XG
YB
XR
FA
FB
G
SWITCHING
REGULATOR
(ZD-106A)
H
CR
A
CG
XB
P
CB
PC

6-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power ¼ W

- All resistors are in ohms.
- ▭ : nonflammable resistor.
- △ : internal component.
- ▭ : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by ☒ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪, make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ☒ and repeat the adjustment until the specified value is achieved. (Refer to R826, R827, R830, and R831 on pages 29 – 31 in the Service Manual.)
- When replacing the part in below table, be sure to perform the related adjustment.

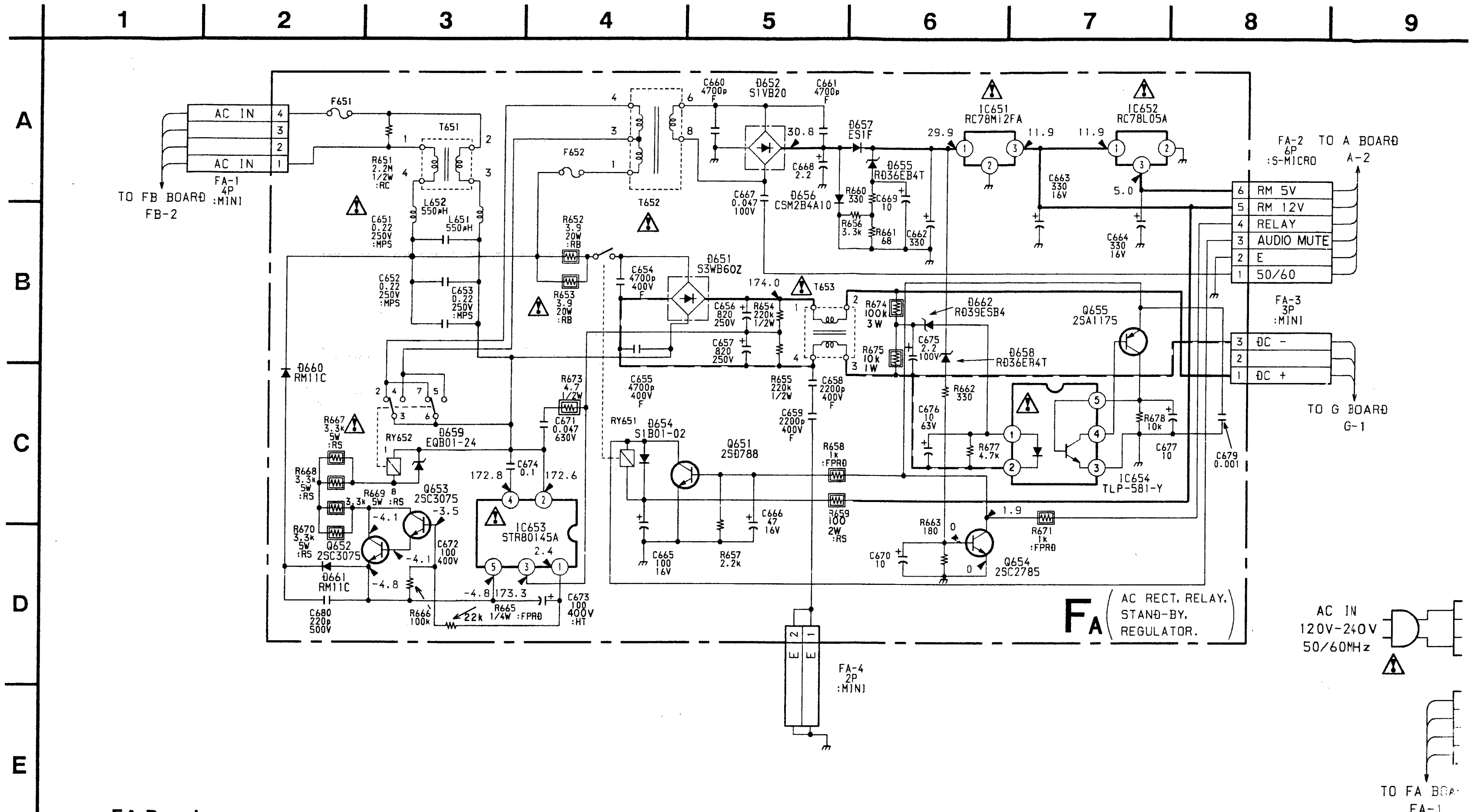
Part replaced (◪)		Adjustment (☒)
HV BLOCK IC804, Q804, D806, D808, C819, R807, R829, R830, R831, R832, R833, R837, R838, R839, R840, R841	P board	HV HOLD DOWN ADJUSTMENT (R830, R831)
HV BLOCK IC803, IC805, D807, C818, R824, R825, R826, R827, R838, R834, R835, R836, R864, R865	P board	HV REGULATOR ADJUSTMENT (R826, R827)

- All voltages are in V.
- Readings are taken with a 10 MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
  no mark : Normal
  ( ) : S signal
- Voltage variations may be noted due to normal production tolerances.
- ━━━ : B + bus.
- ━ ━ ━ : B – bus.
- ▒▒▒> : signal path.

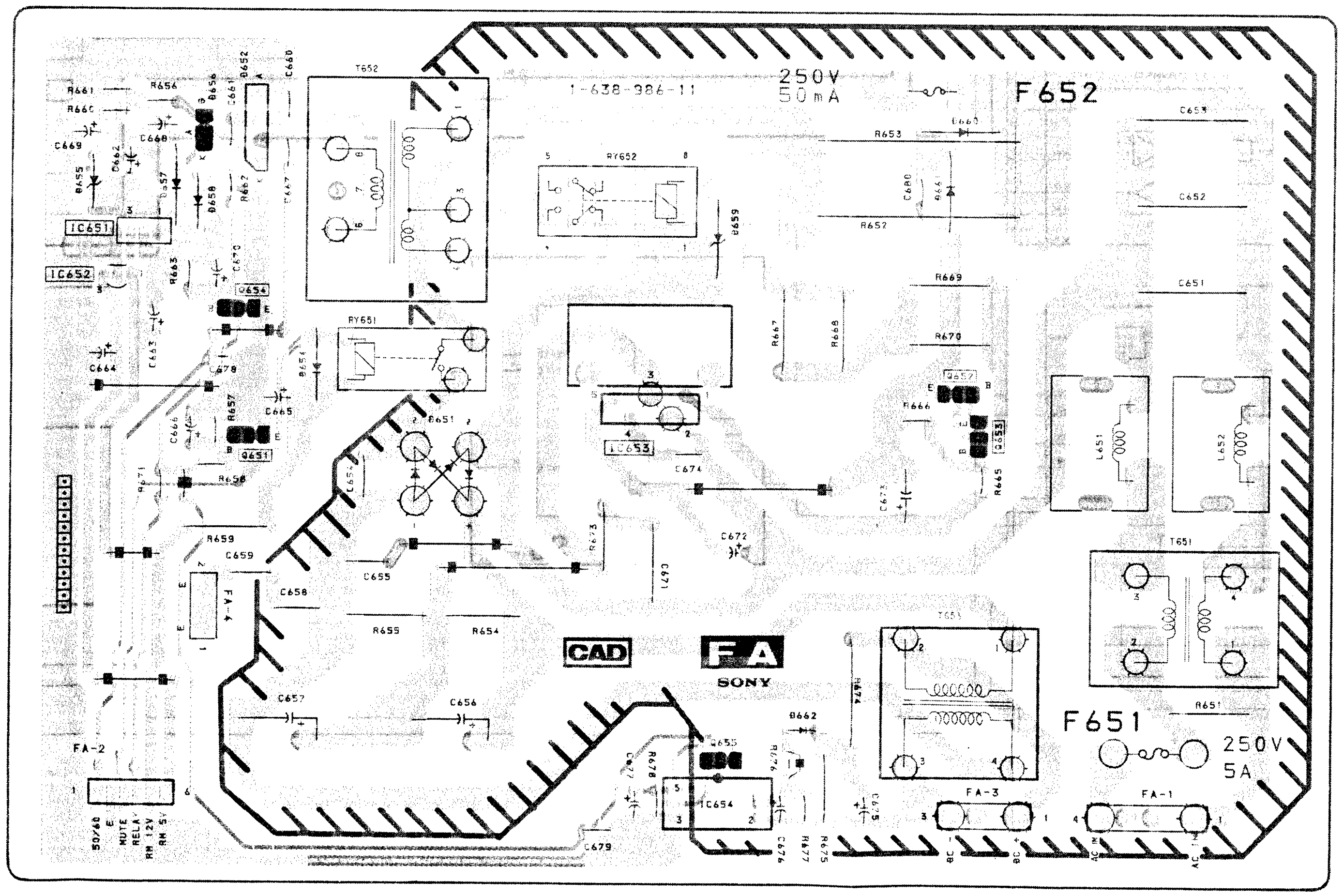
Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

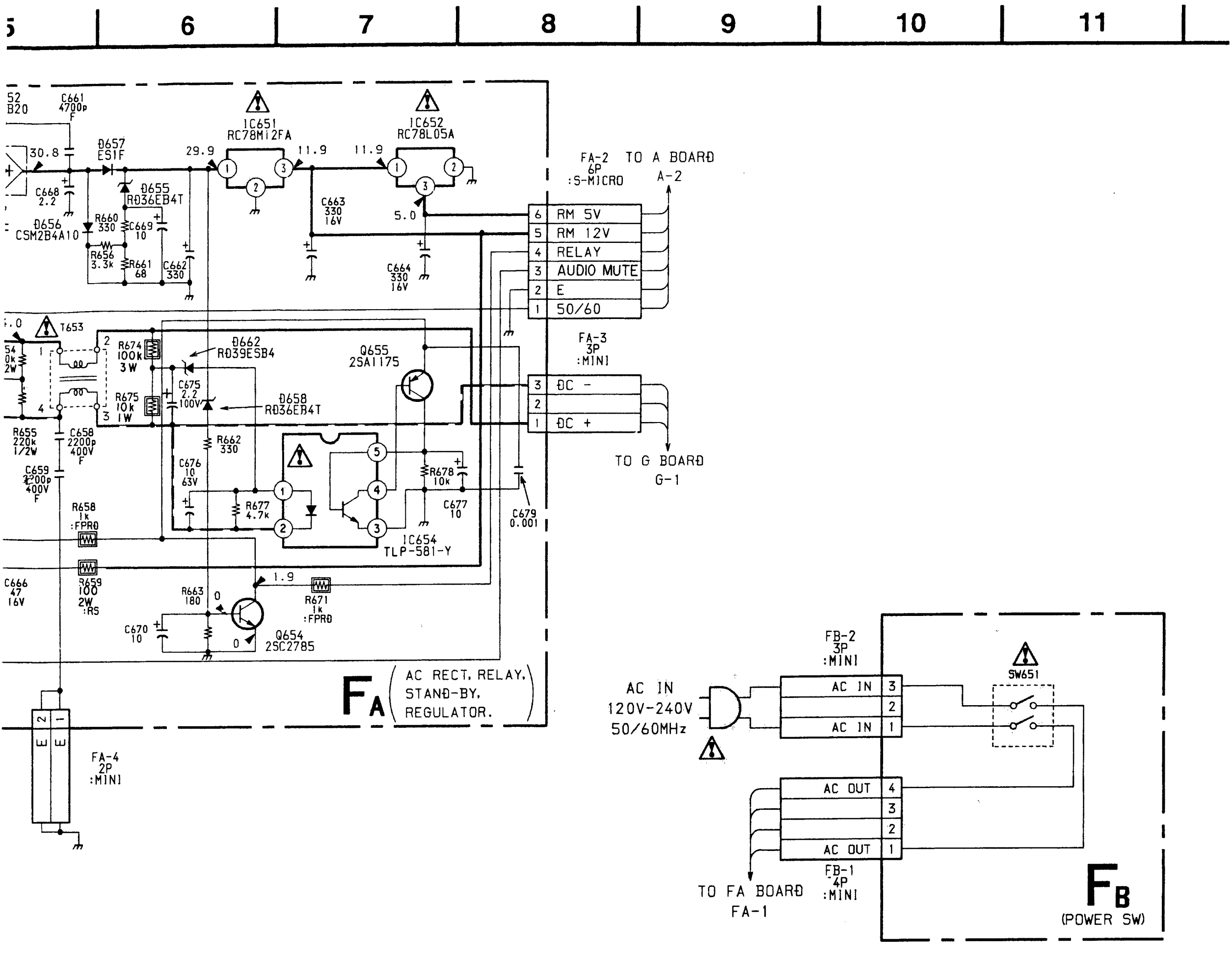
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

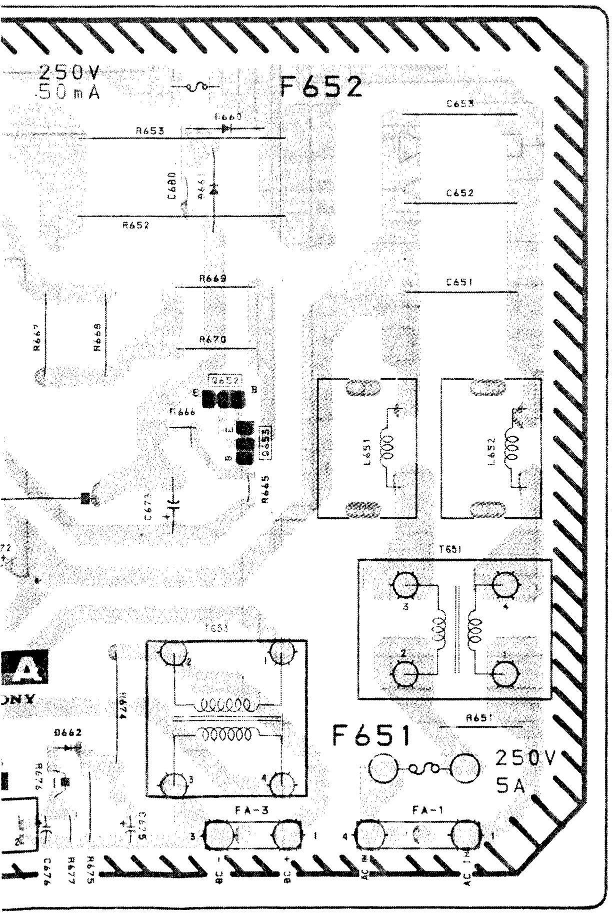

1
2
3
4
5
6
7
8
9
A
B
C
D
E
AC IN
AC IN
TO FB BOARD
FB-2
FA-1
4P
:MINI
F651
T651
F652
T652
IC651
RC78M12FA
IC652
RC78L05A
IC653
STR80145A
IC654
TLP-581-Y
FA-2 TO A BOARD
6P
:S-MICRO
A-2
RM 5V
RM 12V
RELAY
AUDIO MUTE
E
50/60
FA-3
3P
:MINI
DC -
DC +
TO G BOARD
G-1
RY651
RY652
FA-4
2P
:MINI
FA
AC RECT, RELAY,
STAND-BY,
REGULATOR.
AC IN
120V-240V
50/60MHz
TO FA BOARD
FA-1

– FA Board –

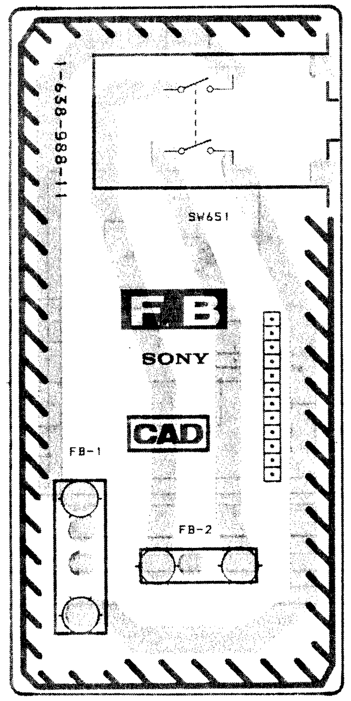

1-638-386-11
250V
50mA
F652
F651
250V
5A
CAD
FA
SONY

– FB


5
6
7
8
9
10
11
IC651 RC78M12FA
IC652 RC78L05A
D657 ES1F
D655 RD36EB4T
D656 CSM2B4A10
C661 4700p
C668 2.2
R660 330
C669 10
R656 3.3k
R661 68
C662 330
C663 330 16V
C664 330 16V
29.9
11.9
5.0
30.8
FA-2 6P :S-MICRO
TO A BOARD A-2
6 RM 5V
5 RM 12V
4 RELAY
3 AUDIO MUTE
2 E
1 50/60
T653
R674 100k 3W
R675 10k 1W
D662 RD39ESB4
D658 RD36EB4T
Q655 2SA1175
C675 2.2 100V
R662 330
R655 220k 1/2W
C658 2200p 400V
C659 2200p 400V
C676 10 63V
R677 4.7k
IC654 TLP-581-Y
R678 10k
C677 10
C679 0.001
FA-3 3P :MINI
3 DC −
2
1 DC +
TO G BOARD G-1
R658 1k :FPRD
R659 100 2W :RS
C666 47 16V
R663 180
R671 1k :FPRD
C670 10
Q654 2SC2785
1.9
FA (AC RECT, RELAY, STAND-BY, REGULATOR.)
FA-4 2P :MINI
FB-2 3P :MINI
AC IN 120V-240V 50/60MHz
AC IN
AC IN
SW651
AC OUT
AC OUT
FB-1 4P :MINI
TO FA BOARD FA-1
FB (POWER SW)

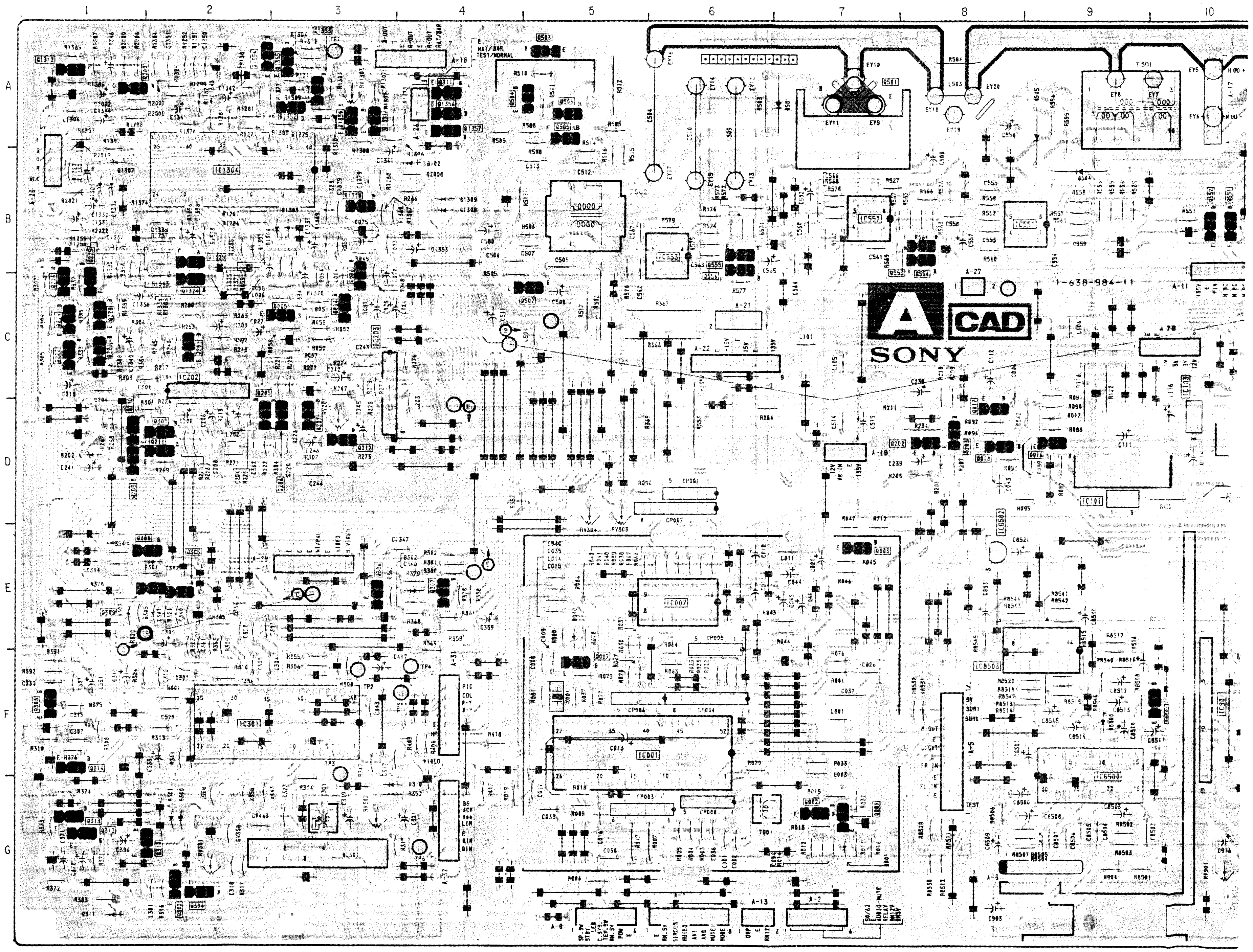

250V .50mA
F652
R653
R652
R669
R670
C653
C652
C651
L651
L652
T651
F651
250V 5A
FA-3
FA-1
D662

– FB Board –


1-638-988-11
SW651
FB
SONY
CAD
FB-1
FB-2

A	R. G. B INTERFACE, SYSTEM CONTROL Y/C JUNGLE, DYNAMIC PICTURE, D/A CONV, H AMP R. G. B, H OUT, AUDIO AMP
FA	AC RECT, RELAY, STAND-BY, REGULATOR
FB	[POWER SW]

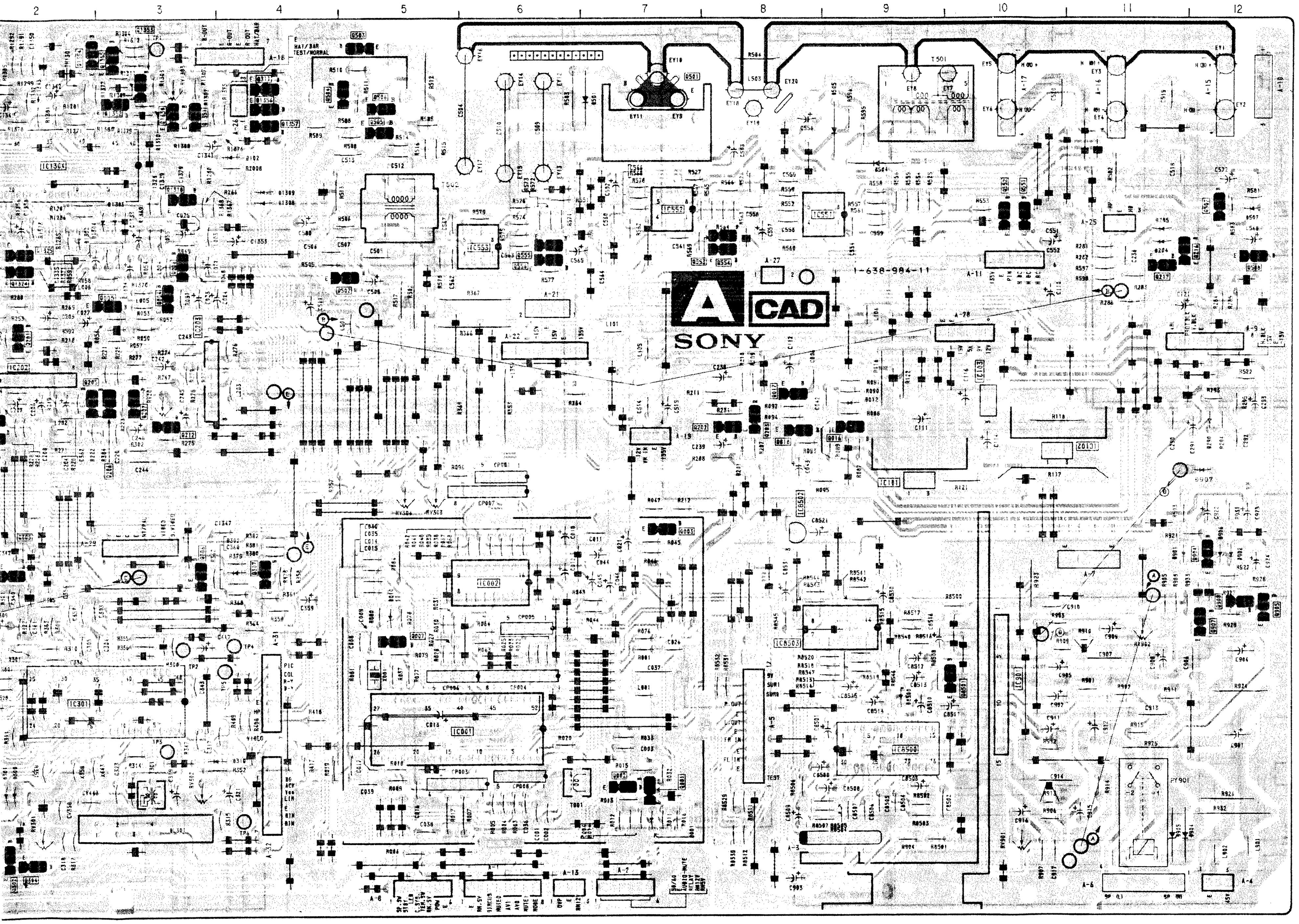
– A Board –


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
A
CAD
SONY
1-638-984-11
IC1304
IC202
IC301
IC001
IC002
IC552
IC553
IC501

A [R. G. B INTERFACE, SYSTEM CONTROL Y/C JUNGLE, DYNAMIC PICTURE, D/A CONV, H AMP R. G. B, H OUT, AUDIO AMP]

FA [AC RECT, RELAY, STAND-BY, REGULATOR]

FB [POWER SW]

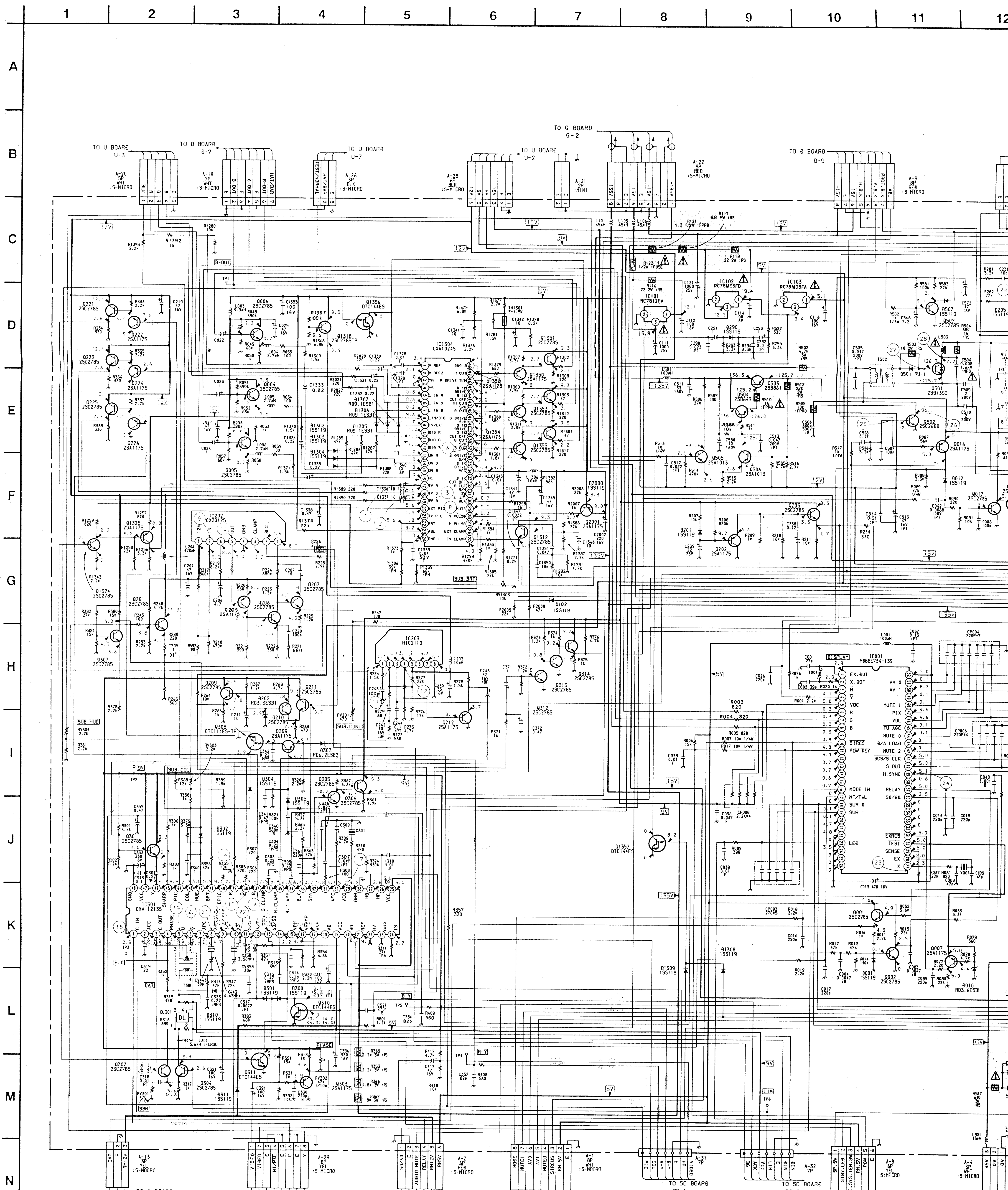


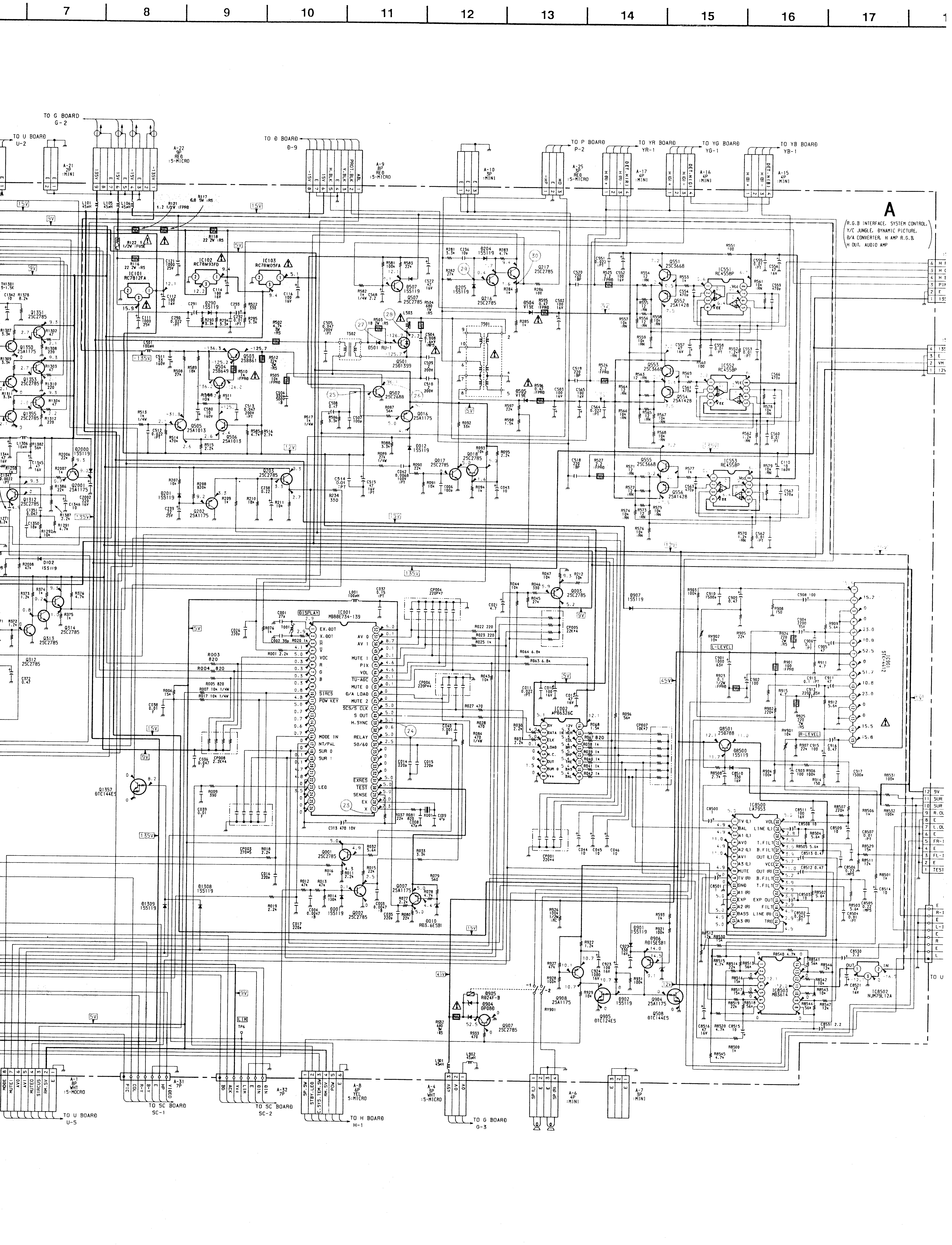
IC	
IC001	F-6
IC002	E-6
IC101	D-9
IC102	D-11
IC103	C-10
IC202	C-2
IC203	C-3
IC301	F-2
IC551	B-8
IC552	B-7
IC553	B-6
IC901	F-10
IC1304	B-2
IC8500	G-9
IC8502	E-8
IC8503	F-8

TRANSISTOR	
Q001	G-7
Q002	G-7
Q003	E-7
Q004	C-3
Q005	C-3
Q006	C-3
Q007	F-5
Q016	D-9
Q017	D-8
Q018	D-8
Q201	C-2
Q202	D-7
Q203	D-8
Q205	C-2
Q206	D-3
Q207	D-3
Q209	D-1
Q210	D-1
Q211	D-2
Q212	D-3
Q216	B-12
Q217	C-11
Q221	C-1
Q222	C-1
Q223	C-1
Q224	C-1
Q225	B-1
Q226	C-1
Q301	D-2
Q302	H-2
Q303	F-1
Q304	H-2
Q305	E-2
Q306	E-3
Q307	E-4
Q308	E-1
Q309	E-1
Q310	G-2
Q311	A-4
Q312	G-1
Q313	G-1
Q314	F-1
Q501	A-7
Q502	C-5
Q503	A-5
Q504	A-4
Q505	A-5
Q506	A-5
Q507	B-12
Q508	C-12
Q551	B-10
Q552	B-10
Q553	B-7
Q554	B-8
Q555	B-6
Q556	C-6
Q904	E-12
Q905	E-12
Q907	F-12
Q908	E-12
Q1312	A-1
Q1324	C-2
Q1325	B-2
Q1350	A-3
Q1351	A-3
Q1353	A-3
Q1354	A-2
Q1355	A-3
Q1356	A-4
Q1357	A-4
Q2001	A-1
Q8501	F-10

DIODE	
D001	G-7
D010	E-5
D012	D-9
D102	B-4
D201	D-8
D202	D-1
D204	B-11
D205	B-11
D290	D-12
D300	G-2
D301	G-2
D302	E-4
D303	E-1
D304	E-2
D305	E-2
D310	G-4
D311	H-1
D501	A-7
D504	B-9
D505	A-9
D507	B-12
D901	E-11
D902	E-12
D904	G-12
D905	G-11
D906	E-12
D907	D-12
D1302	B-2
D1303	B-3
D1304	B-3
D1305	B-1
D1306	B-1
D1307	B-1
D1308	B-4
D1309	B-4
D2000	A-1
D8500	F-9

VARIABLE RESISTOR	
RV201	D-3
RV301	G-2
RV302	G-3
RV303	E-5
RV304	E-5
RV901	G-10
RV902	F-11
RV1303	A-3


TO U BOARD U-3
A-20 5P WHT :S-MICRO
TO Θ BOARD Θ-7
A-18 7P WHT :S-MICRO
TO U BOARD U-7
A-26 3P BLK :S-MICRO
A-28 6P BLK :S-MICRO
TO U BOARD U-2
A-21 2P :MINI
TO G BOARD G-2
A-22 9P RED :S-MICRO
TO Θ BOARD Θ-9
A-9 8P RED :S-MICRO
IC101 RC7812FA
IC102 RC78M93FD
IC103 RC78M05FA
IC1304 CXA1024S
IC202 CX20125
IC203 HIC2110
IC301 CXA-1213S
IC001 M888E734-139
A-13 3P YEL :S-MICRO
TO G BOARD G-6
A-29 8P YEL :S-MICRO
TO U BOARD U-1
A-2 6P RED :S-MICRO
TO FA BOARD FA-2
A-1 8P WHT :S-MICRO
TO U BOARD U-5
A-31 7P
TO SC BOARD SC-1
A-32 7P
TO SC BOARD SC-2
A-8 6P YEL :S-MICRO
TO H BOARD H-1
A-4 3P WHT :S-MICRO


7
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14
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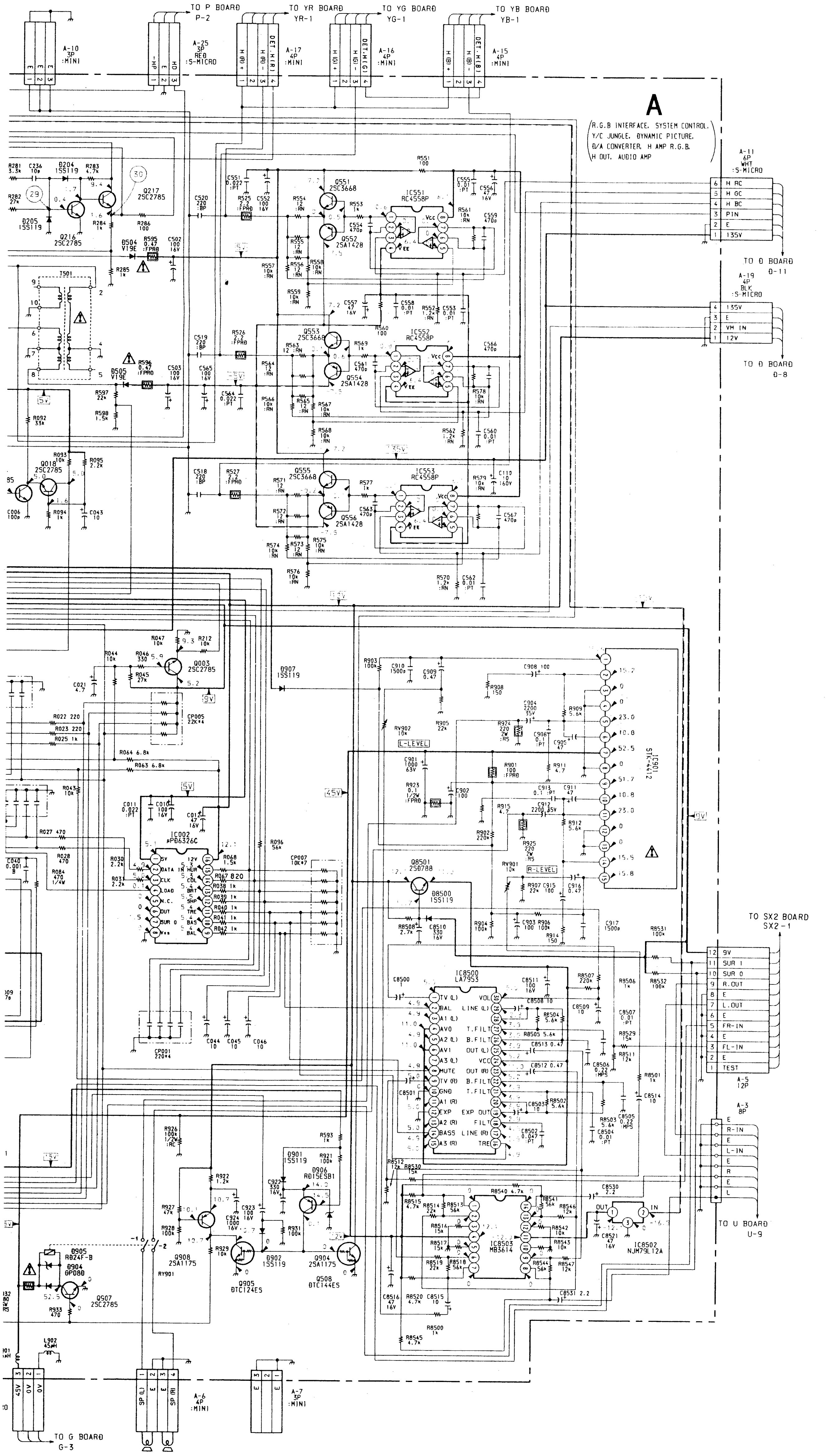
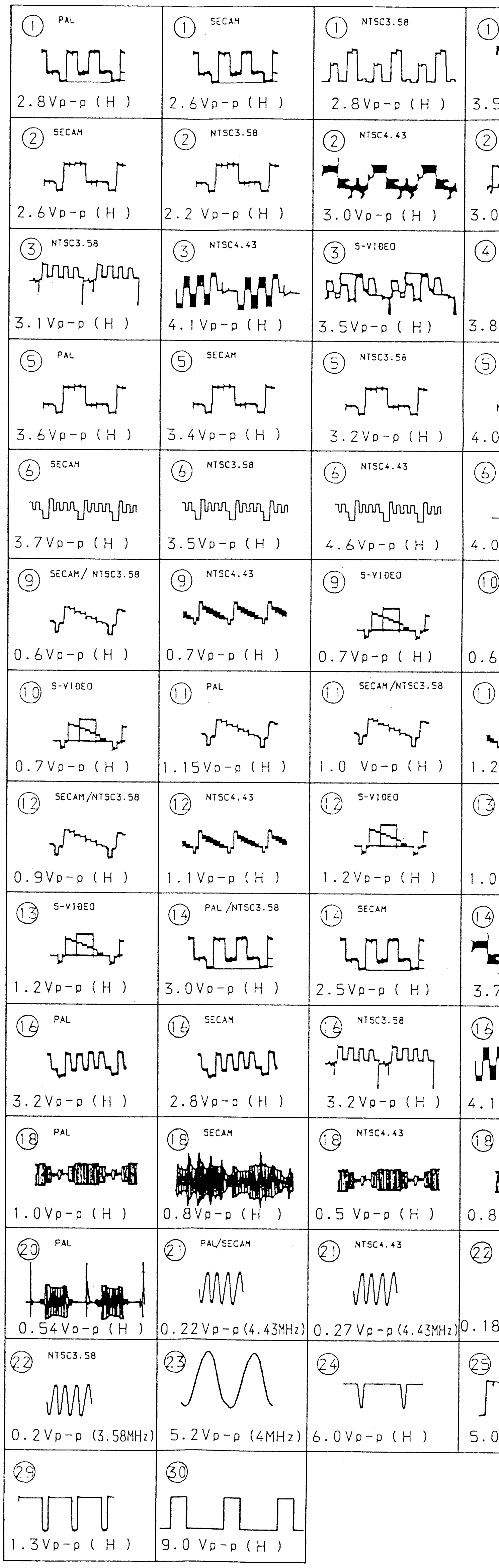
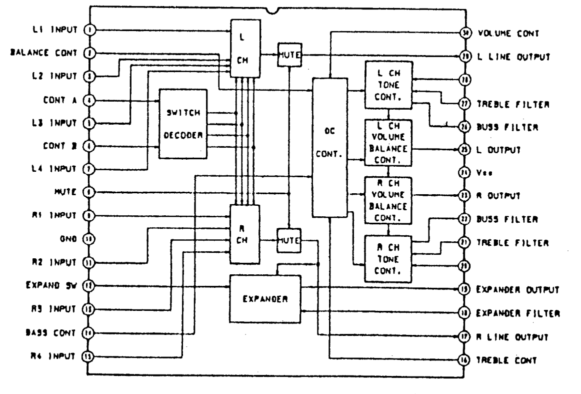
16
17
A
R.G.B INTERFACE, SYSTEM CONTROL, Y/C JUNGLE, DYNAMIC PICTURE, D/A CONVERTER, H AMP R.G.B, H OUT, AUDIO AMP
TO G BOARD G-2
TO U BOARD U-2
A-21 2P :MINI
A-22 9P RED :S-MICRO
TO D BOARD D-9
A-9 8P RED :S-MICRO
A-10 3P :MINI
TO P BOARD P-2
A-25 3P RED :S-MICRO
TO YR BOARD YR-1
A-17 4P :MINI
TO YG BOARD YG-1
A-16 4P :MINI
TO YB BOARD YB-1
A-15 4P :MINI
IC101 RC7812FA
IC102 RC78M93FD
IC103 RC78M05FA
IC001 MB88E734-139
IC002 μPB6326C
IC551 RC4558P
IC552 RC4558P
IC553 RC4558P
IC901 STK-4412
IC8500 LA7953
IC8503 MB3614
IC8502 NJM79L12A
T501
T502
RY901
L-LEVEL
R-LEVEL
DISPLAY
TP6
A-1 8P WHT :S-MOCRO
TO U BOARD U-5
A-31 7P
TO SC BOARD SC-1
A-32 7P
TO SC BOARD SC-2
A-8 6P YEL S:MICRO
TO H BOARD H-1
A-4 3P WHT :S-MICRO
TO G BOARD G-3
A-6 4P :MINI
A-7 3P :MINI
TO U


A
R.G.B INTERFACE, SYSTEM CONTROL, Y/C JUNGLE, DYNAMIC PICTURE, D/A CONVERTER, H AMP R.G.B, H OUT, AUDIO AMP
TO P BOARD P-2
TO YR BOARD YR-1
TO YG BOARD YG-1
TO YB BOARD YB-1
TO O BOARD O-11
TO O BOARD O-8
TO SX2 BOARD SX2-1
TO U BOARD U-9
TO G BOARD G-3
IC551 RC4558P
IC552 RC4558P
IC553 RC4558P
IC002 μPD6326C
IC8500 LA7953
IC8503 M83674
IC8502 NJM79L12A
IC901 STK-4412
L-LEVEL
R-LEVEL

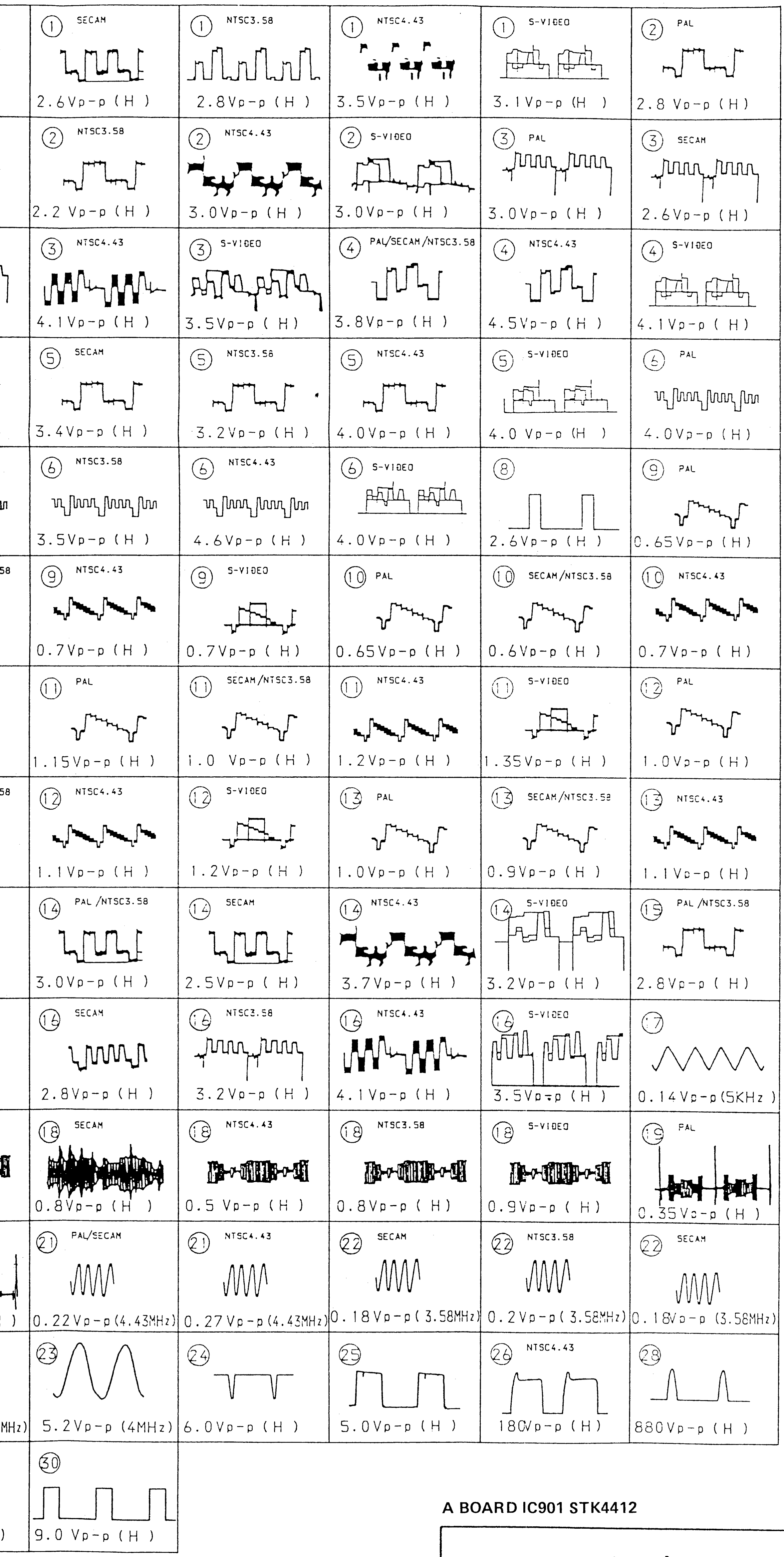
A BOARD WAVEFORM


① PAL 2.8Vp-p (H)
① SECAM 2.6Vp-p (H)
① NTSC3.58 2.8Vp-p (H)
② SECAM 2.6Vp-p (H)
② NTSC3.58 2.2 Vp-p (H)
② NTSC4.43 3.0Vp-p (H)
③ NTSC3.58 3.1Vp-p (H)
③ NTSC4.43 4.1Vp-p (H)
③ S-VIDEO 3.5Vp-p (H)
⑤ PAL 3.6Vp-p (H)
⑤ SECAM 3.4Vp-p (H)
⑤ NTSC3.58 3.2Vp-p (H)
⑥ SECAM 3.7Vp-p (H)
⑥ NTSC3.58 3.5Vp-p (H)
⑥ NTSC4.43 4.6Vp-p (H)
⑨ SECAM/NTSC3.58 0.6Vp-p (H)
⑨ NTSC4.43 0.7Vp-p (H)
⑨ S-VIDEO 0.7Vp-p (H)
⑩ S-VIDEO 0.7Vp-p (H)
⑪ PAL 1.15Vp-p (H)
⑪ SECAM/NTSC3.58 1.0 Vp-p (H)
⑫ SECAM/NTSC3.58 0.9Vp-p (H)
⑫ NTSC4.43 1.1Vp-p (H)
⑫ S-VIDEO 1.2Vp-p (H)
⑬ S-VIDEO 1.2Vp-p (H)
⑭ PAL/NTSC3.58 3.0Vp-p (H)
⑭ SECAM 2.5Vp-p (H)
⑯ PAL 3.2Vp-p (H)
⑯ SECAM 2.8Vp-p (H)
⑯ NTSC3.58 3.2Vp-p (H)
⑱ PAL 1.0Vp-p (H)
⑱ SECAM 0.8Vp-p (H)
⑱ NTSC4.43 0.5 Vp-p (H)
⑳ PAL 0.54Vp-p (H)
㉑ PAL/SECAM 0.22Vp-p(4.43MHz)
㉑ NTSC4.43 0.27Vp-p(4.43MHz)
㉒ NTSC3.58 0.2Vp-p (3.58MHz)
㉓ 5.2Vp-p (4MHz)
㉔ 6.0Vp-p (H)
㉙ 1.3Vp-p (H)
㉚ 9.0 Vp-p (H)

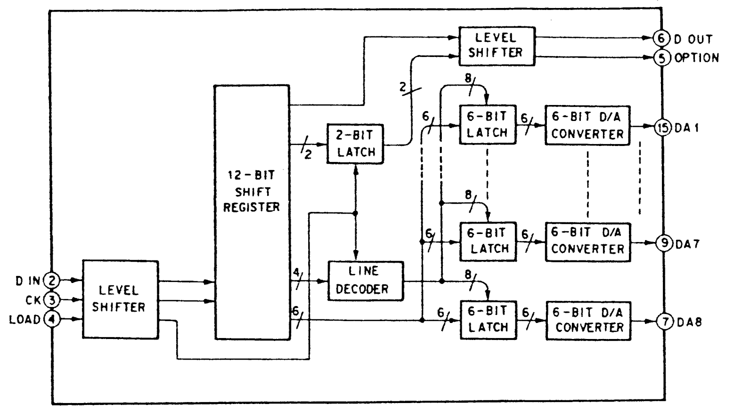
A BOARDIC8500 la7953


L1 INPUT
BALANCE CONT
L2 INPUT
CONT A
L3 INPUT
CONT B
L4 INPUT
MUTE
R1 INPUT
GND
R2 INPUT
EXPAND SW
R3 INPUT
BASS CONT
R4 INPUT
L CH
MUTE
L CH TONE CONT.
SWITCH DECODER
L CH VOLUME BALANCE CONT.
DC CONT.
R CH VOLUME BALANCE CONT.
R CH
MUTE
R CH TONE CONT.
EXPANDER
VOLUME CONT
L LINE OUTPUT
TREBLE FILTER
BUSS FILTER
L OUTPUT
Vcc
R OUTPUT
BUSS FILTER
TREBLE FILTER
EXPANDER OUTPUT
EXPANDER FILTER
R LINE OUTPUT
TREBLE CONT

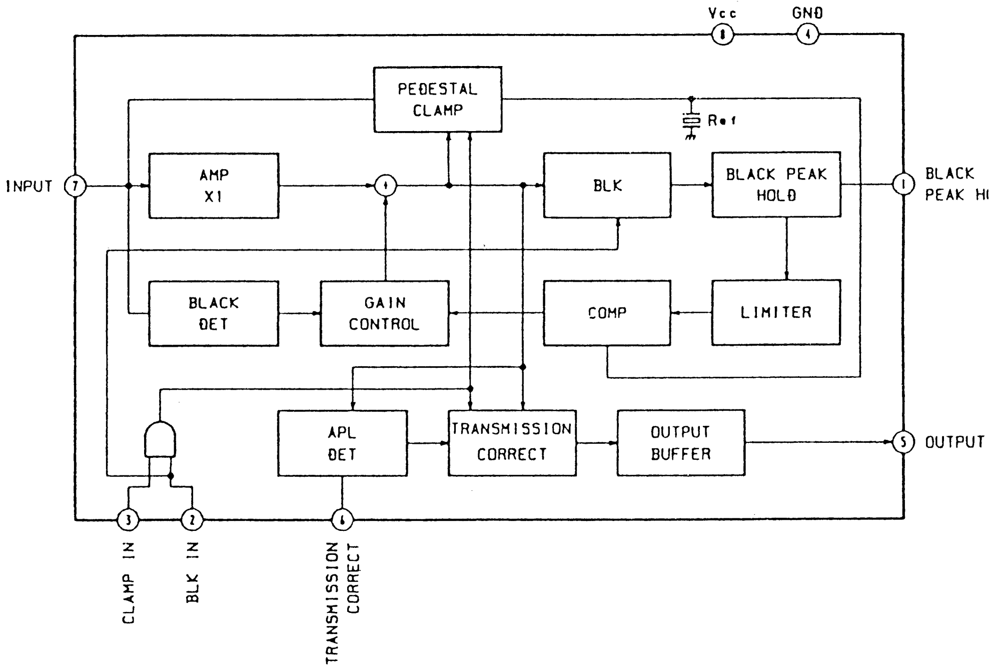
AVEFORM



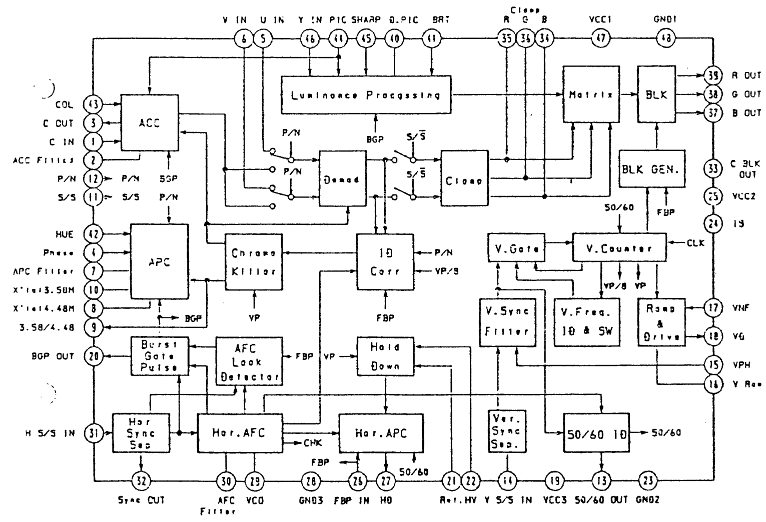
A BOARD IC002 uPD6326


LEVEL SHIFTER
6 D OUT
5 OPTION
12-BIT SHIFT REGISTER
2-BIT LATCH
6-BIT LATCH
6-BIT D/A CONVERTER
15 DA1
9 DA7
7 DA8
LINE DECODER
LEVEL SHIFTER
D IN 2
CK 3
LOAD 4

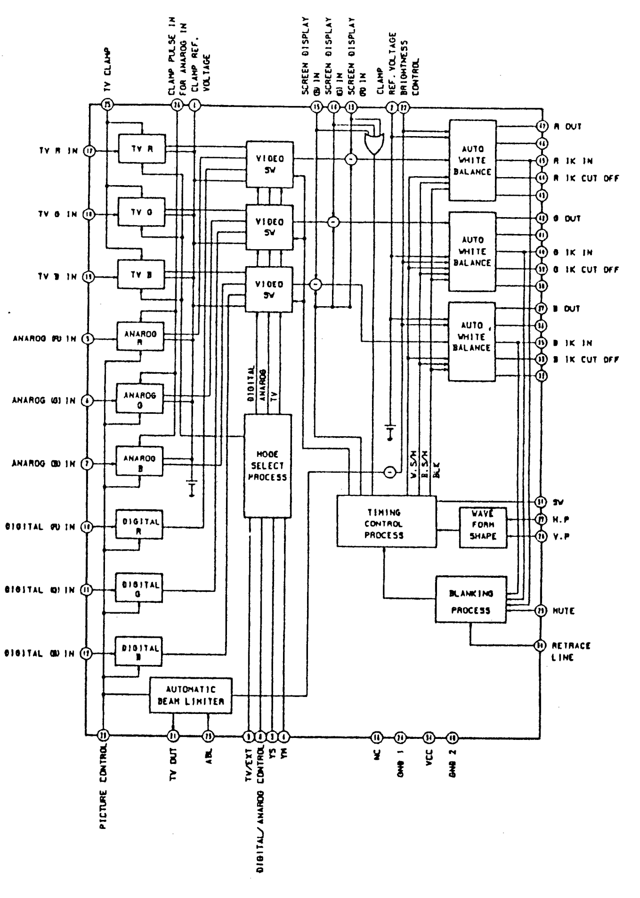
A BOARD IC202 CX20125


Vcc 8
GND 4
PEDESTAL CLAMP
Ref
INPUT 7
AMP X1
BLK
BLACK PEAK HOLD
1 BLACK PEAK H
BLACK DET
GAIN CONTROL
COMP
LIMITER
APL DET
TRANSMISSION CORRECT
OUTPUT BUFFER
5 OUTPUT
3 CLAMP IN
2 BLK IN
6 TRANSMISSION CORRECT

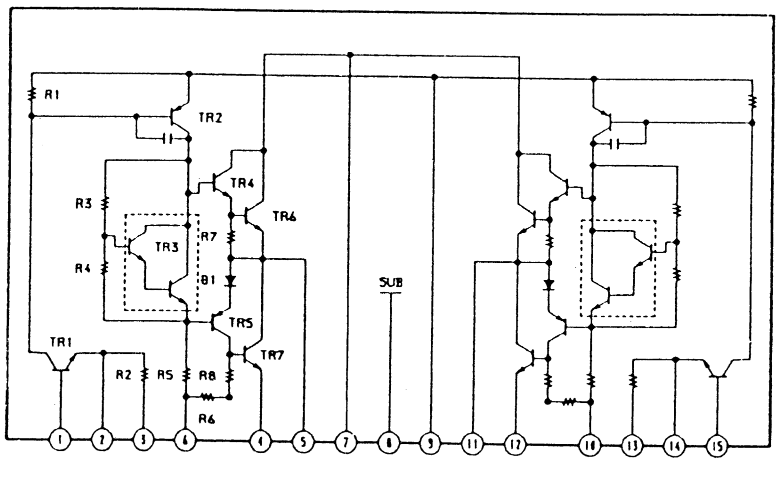
A BOARD IC301 CXA1213S


Luminance Processing
Matrix
BLK
R OUT
G OUT
B OUT
ACC
Demod
Clamp
BLK GEN.
C BLK OUT
VCC2
APC
Chroma Killer
ID Corr
V.Gate
V.Counter
V.Sync Filter
V.Freq. ID & SW
Ramp & Drive
Burst Gate Pulse
AFC Lock Detector
Hold Down
Hor Sync Sep
Hor.AFC
Hor.APC
Ver. Sync Sep.
50/60 ID
COL
C OUT
C IN
HUE
H S/S IN

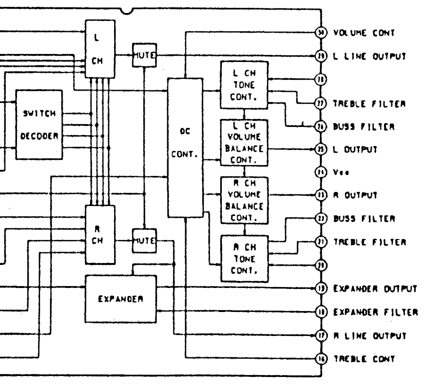
A BOARD IC304 CXA1024S

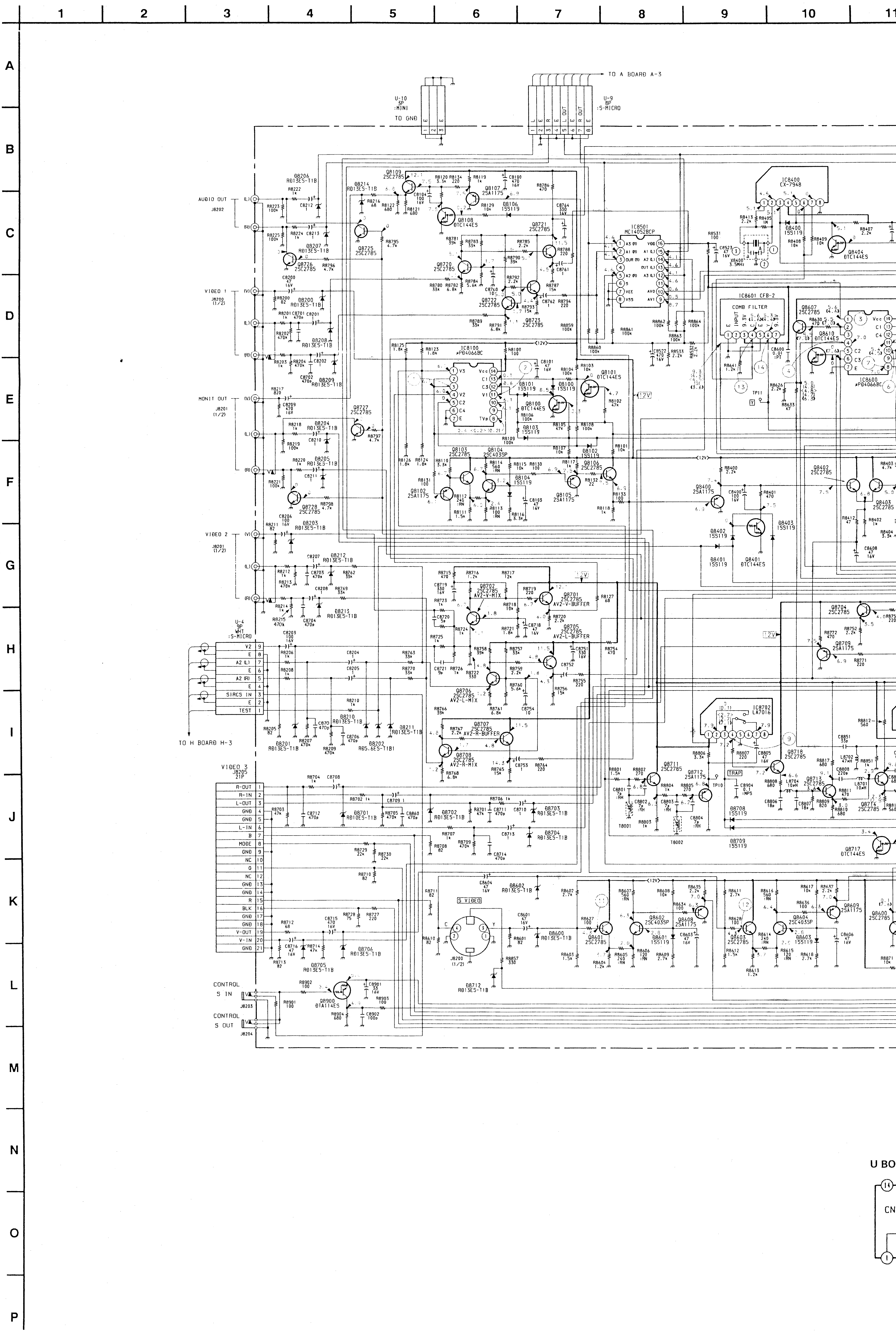

TV CLAMP
TV R IN
TV G IN
TV B IN
VIDEO SW
AUTO WHITE BALANCE
R OUT
R IK IN
R IK CUT OFF
G OUT
G IK IN
G IK CUT OFF
B OUT
B IK IN
B IK CUT OFF
ANAROG R IN
ANAROG G IN
ANAROG B IN
DIGITAL R IN
DIGITAL G IN
DIGITAL B IN
MODE SELECT PROCESS
TIMING CONTROL PROCESS
WAVE FORM SHAPE
BLANKING PROCESS
AUTOMATIC BEAM LIMITER
SV
H.P
V.P
MUTE
RETRACE LINE
PICTURE CONTROL
TV OUT
ABL
DIGITAL/ANAROG CONTROL
GND 1
VCC
GND 2

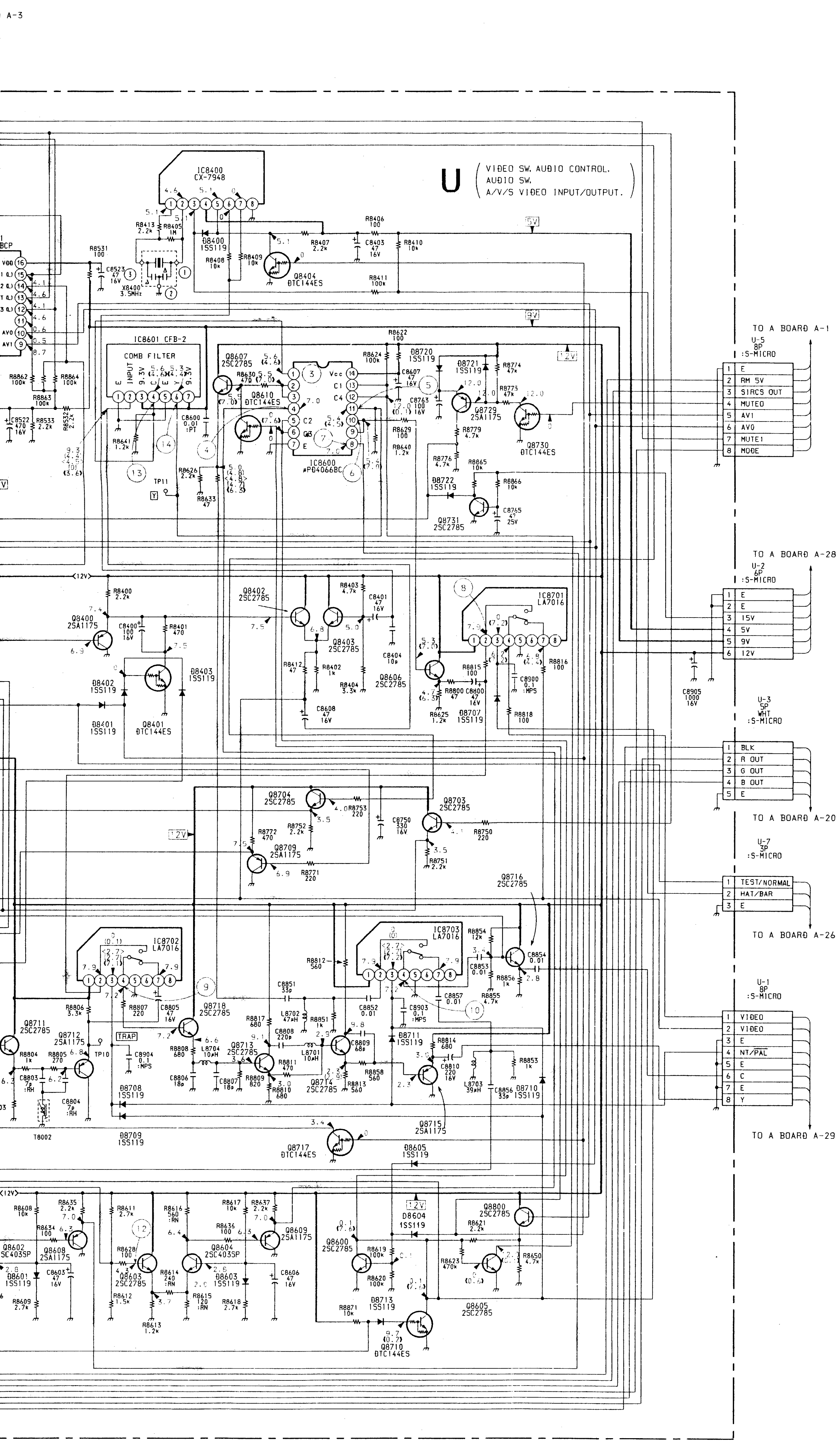
A BOARD IC901 STK4412

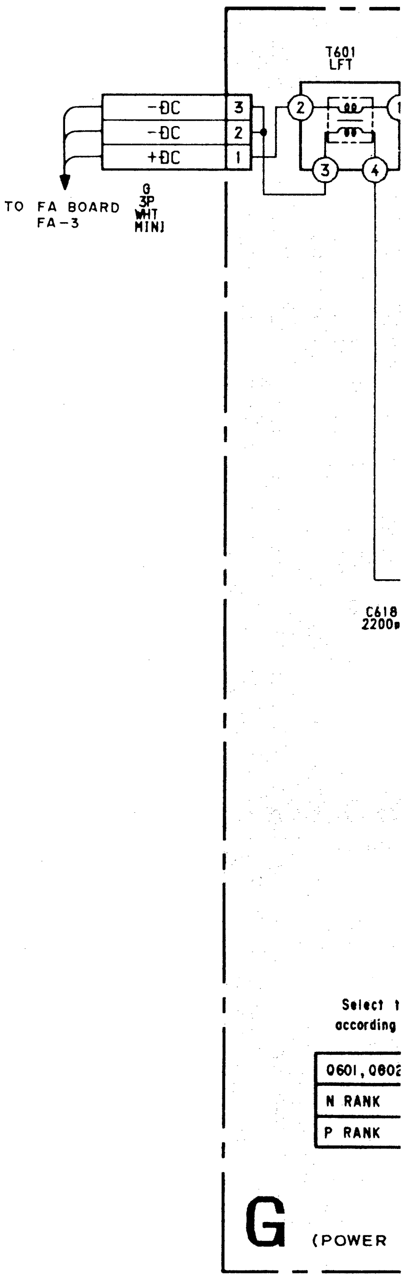

R1
TR2
TR4
TR6
R3
TR3
R7
D1
R4
TR5
TR7
TR1
R2
R5
R8
R6
SUB
1
2
3
6
4
5
7
8
9
11
12
10
13
14
15

ARDIC8500 la7953

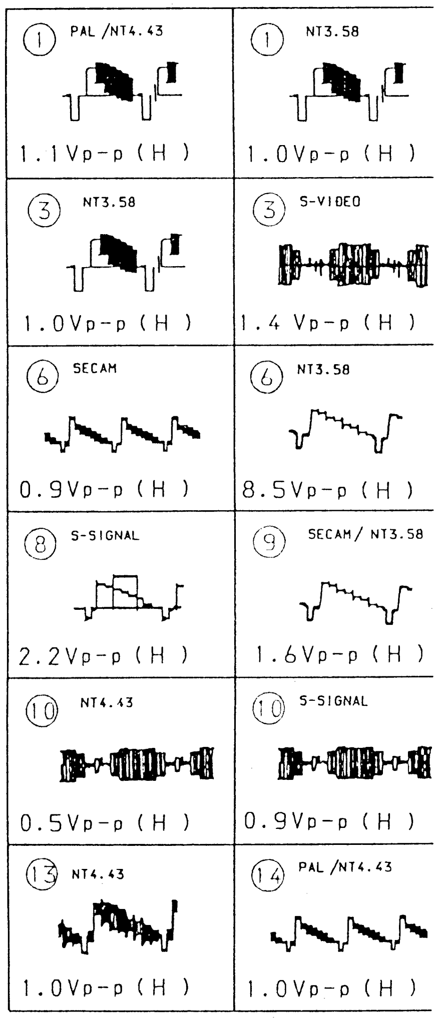

L CH
MUTE
SWITCH DECODER
DC CONT.
L CH TONE CONT.
L CH VOLUME BALANCE CONT.
R CH VOLUME BALANCE CONT.
R CH TONE CONT.
R CH
MUTE
EXPANDER
VOLUME CONT
L LINE OUTPUT
TREBLE FILTER
BUSS FILTER
L OUTPUT
Vcc
R OUTPUT
BUSS FILTER
TREBLE FILTER
EXPANDER OUTPUT
EXPANDER FILTER
R LINE OUTPUT
TREBLE CONT


TO A BOARD A-3
U-10 3P :MINI
TO GND
U-9 8P :S-MICRO
AUDIO OUT
J8202
VIDEO 1
J8200 (1/2)
MONIT OUT
J8201 (1/2)
VIDEO 2
J8201 (1/2)
U-4 9P WHT :S-MICRO
V2
E
A2 (L)
E
A2 (R)
E
SIRCS IN
E
TEST
TO H BOARD H-3
VIDEO 3 J8205 21P
R-OUT
R-IN
L-OUT
GND
GND
L-IN
B
MODE
GND
NC
G
NC
GND
GND
R
BLK
GND
GND
V-OUT
V-IN
GND
CONTROL S IN
J8203
CONTROL S OUT
J8204
IC8100 μPD4066BC
IC8501 MC14052BCP
IC8400 CX-7948
IC8601 CFB-2
COMB FILTER
IC8600 μPD4066BC
IC8702 LA7016
Q8701 2SC2785 AV2-V-BUFFER
Q8702 2SC2785 AV2-V-MIX
Q8705 2SC2785 AV2-L-BUFFER
Q8706 2SC2785 AV2-L-MIX
Q8707 2SC2785 AV2-R-BUFFER
Q8708 2SC2785 AV2-R-MIX
Q8900 DTA114ES
S VIDEO
J8200 (1/2)
TRAP
T8001
T8002
TP10
TP11
12V
U BO
CN

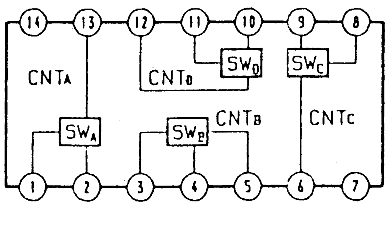

U
VIDEO SW, AUDIO CONTROL,
AUDIO SW,
A/V/S VIDEO INPUT/OUTPUT.
IC8400 CX-7948
IC8601 CFB-2
COMB FILTER
IC8600 μPD4066BC
IC8701 LA7016
IC8702 LA7016
IC8703 LA7016
X8400 3.5MHz
TO A BOARD A-1
U-5 8P :S-MICRO
1 E
2 RM 5V
3 SIRCS OUT
4 MUTEO
5 AVI
6 AVO
7 MUTE1
8 MODE
TO A BOARD A-28
U-2 6P :S-MICRO
1 E
2 E
3 15V
4 5V
5 9V
6 12V
U-3 5P WHT :S-MICRO
1 BLK
2 R OUT
3 G OUT
4 B OUT
5 E
TO A BOARD A-20
U-7 3P :S-MICRO
1 TEST/NORMAL
2 HAT/BAR
3 E
TO A BOARD A-26
U-1 8P :S-MICRO
1 VIDEO
2 VIDEO
3 E
4 NT/PAL
5 E
6 C
7 E
8 Y
TO A BOARD A-29
TRAP
T8002
TP10
TP11
A-3


T601
LFT
-BC
-BC
+BC
3
2
1
TO FA BOARD
FA-3
G
3P
WHT
MINI
C618
2200p
Select
according
Q601,Q602
N RANK
P RANK
G
(POWER

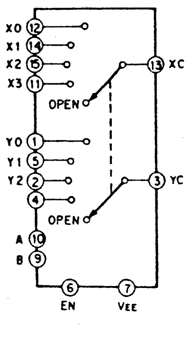
U BOARD WAVEFORM

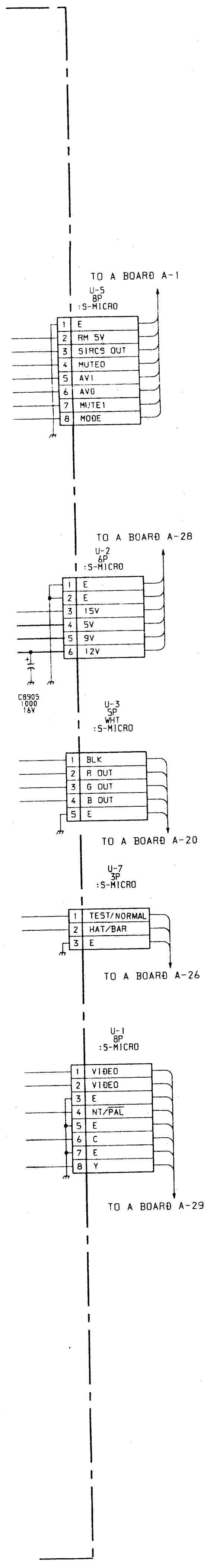


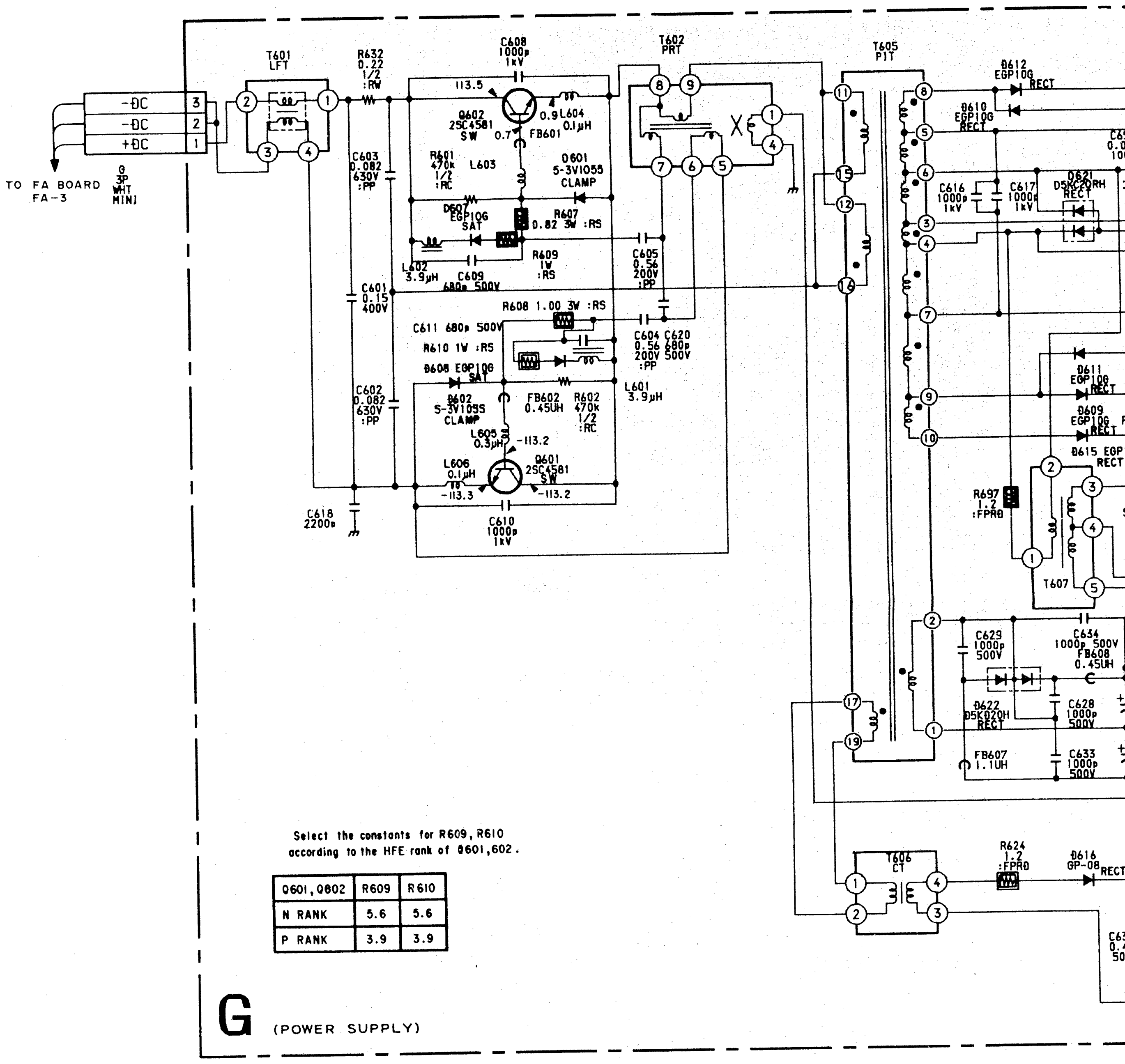
U BOARD IC8600 uPD4066BC


14
13
12
11
10
9
8
CNTA
CNTD
SWD
SWC
CNTB
CNTC
SWA
SWB
1
2
3
4
5
6
7

U BOARD IC8501 MC14052BCP


X0 12
X1 14
X2 15
X3 11
13 XC
OPEN
Y0 1
Y1 5
Y2 2
Y3 4
3 YC
OPEN
A 10
B 9
6
7
EN
VEE


TO A BOARD A-1
U-5
8P
:S-MICRO
1 E
2 RM 5V
3 SIRCS OUT
4 MUTED
5 AV1
6 AVG
7 MUTE1
8 MODE
TO A BOARD A-28
U-2
6P
:S-MICRO
1 E
2 E
3 15V
4 5V
5 9V
6 12V
C8905
1000
16V
U-3
5P
WHT
:S-MICRO
1 BLK
2 R OUT
3 G OUT
4 B OUT
5 E
TO A BOARD A-20
U-7
3P
:S-MICRO
1 TEST/NORMAL
2 HAT/BAR
3 E
TO A BOARD A-26
U-1
8P
:S-MICRO
1 VIDEO
2 VIDEO
3 E
4 NT/PAL
5 E
6 C
7 E
8 Y
TO A BOARD A-29

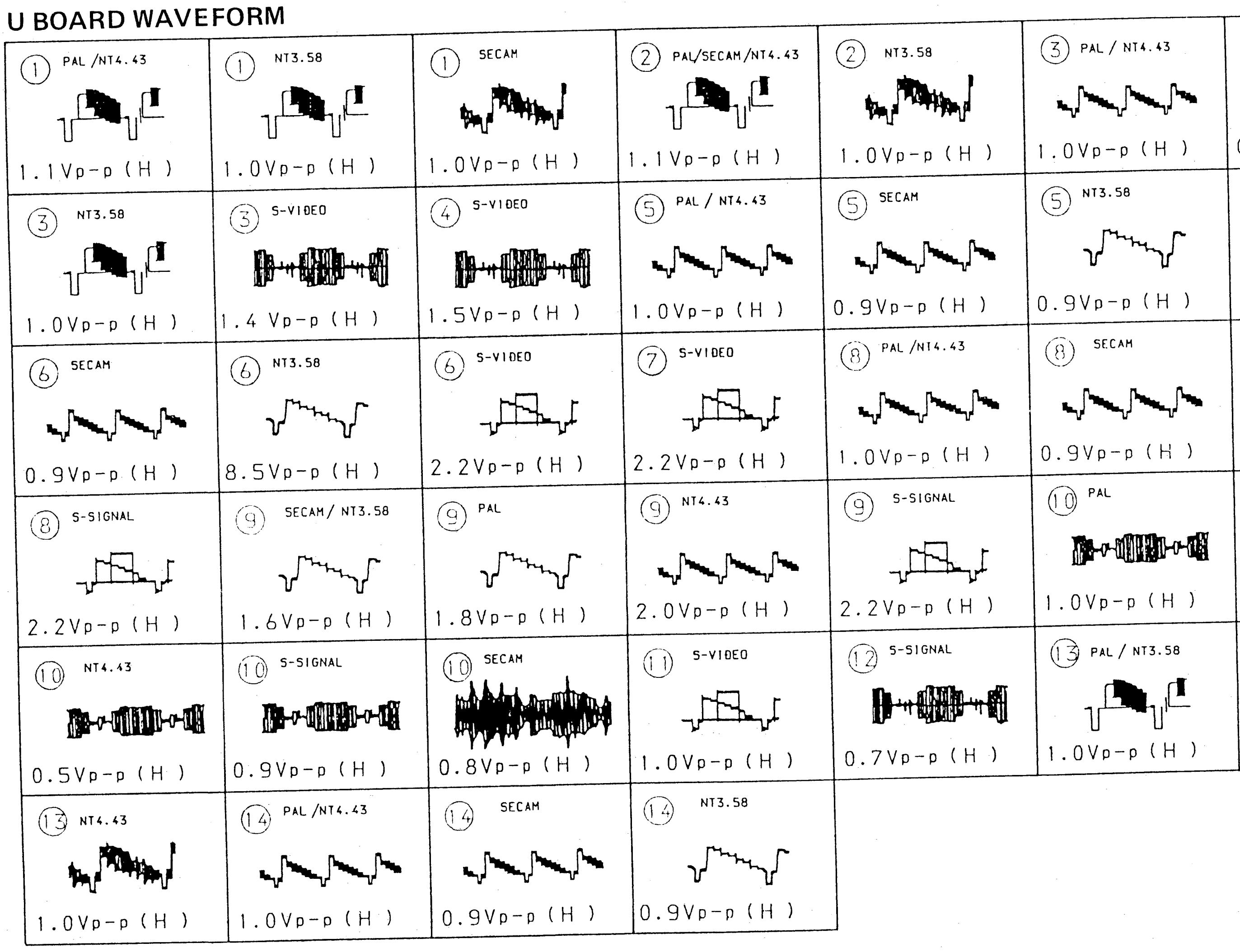

-DC
-DC
+DC
TO FA BOARD FA-3
8
3P
WHT
MINI
T601
LFT
R632
0.22
1/2
:RW
C608
1000p
1kV
113.5
Q602
2SC4581
SW
0.7
0.9
L604
0.1μH
FB601
T602
PRT
T605
PIT
C603
0.082
630V
:PP
R601
470k
1/2
:RC
L603
D601
S-3V1055
CLAMP
D607
EGP10G
SAT
R607
0.82 3W :RS
L602
3.9μH
C609
680p 500V
R609
1W
:RS
C605
0.56
200V
:PP
C601
0.15
400V
R608 1.00 3W :RS
C611 680p 500V
R610 1W :RS
D608 EGP10G
SAT
C604
0.56
200V
:PP
C620
680p
500V
L601
3.9μH
C602
0.082
630V
:PP
D602
S-3V105S
CLAMP
FB602
0.45UH
R602
470k
1/2
:RC
L605
0.3μH
-113.2
L606
0.1μH
-113.3
Q601
2SC4581
SW
-113.2
C610
1000p
1kV
C618
2200p
D612
EGP10G
RECT
D610
EGP10G
RECT
C616
1000p
1kV
C617
1000p
1kV
D621
D5K
RECT
D611
EGP10G
RECT
D609
EGP10G
RECT
D615 EGP
RECT
R697
1.2
:FPRD
T607
C629
1000p
500V
C634
1000p 500V
FB608
0.45UH
D622
D5K020H
RECT
C628
1000p
500V
FB607
1.1UH
C633
1000p
500V
T606
CT
R624
1.2
:FPRD
D616
GP-08
RECT

Select the constants for R609, R610 according to the HFE rank of Q601,Q602.

Q601, Q602	R609	R610
N RANK	5.6	5.6
P RANK	3.9	3.9

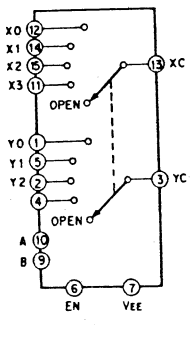
G (POWER SUPPLY)

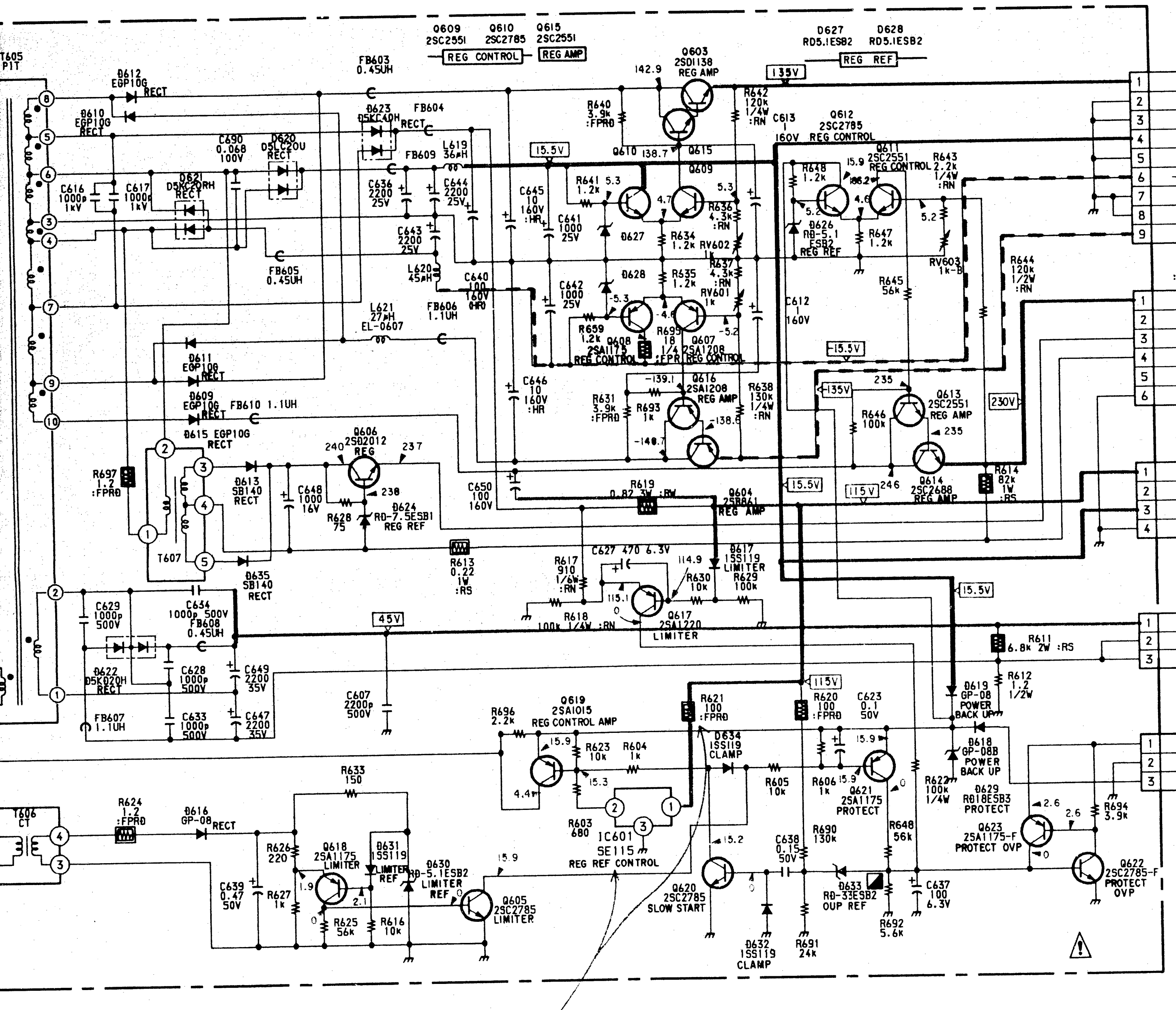
U BOARD WAVEFORM



① PAL/NT4.43 1.1Vp-p (H)	① NT3.58 1.0Vp-p (H)	① SECAM 1.0Vp-p (H)	② PAL/SECAM/NT4.43 1.1Vp-p (H)	② NT3.58 1.0Vp-p (H)	③ PAL / NT4.43 1.0Vp-p (H)
③ NT3.58 1.0Vp-p (H)	③ S-VIDEO 1.4 Vp-p (H)	④ S-VIDEO 1.5Vp-p (H)	⑤ PAL / NT4.43 1.0Vp-p (H)	⑤ SECAM 0.9Vp-p (H)	⑤ NT3.58 0.9Vp-p (H)
⑥ SECAM 0.9Vp-p (H)	⑥ NT3.58 8.5Vp-p (H)	⑥ S-VIDEO 2.2Vp-p (H)	⑦ S-VIDEO 2.2Vp-p (H)	⑧ PAL/NT4.43 1.0Vp-p (H)	⑧ SECAM 0.9Vp-p (H)
⑧ S-SIGNAL 2.2Vp-p (H)	⑨ SECAM/NT3.58 1.6Vp-p (H)	⑨ PAL 1.8Vp-p (H)	⑨ NT4.43 2.0Vp-p (H)	⑨ S-SIGNAL 2.2Vp-p (H)	⑩ PAL 1.0Vp-p (H)
⑩ NT4.43 0.5Vp-p (H)	⑩ S-SIGNAL 0.9Vp-p (H)	⑩ SECAM 0.8Vp-p (H)	⑪ S-VIDEO 1.0Vp-p (H)	⑫ S-SIGNAL 0.7Vp-p (H)	⑬ PAL / NT3.58 1.0Vp-p (H)
⑬ NT4.43 1.0Vp-p (H)	⑭ PAL/NT4.43 1.0Vp-p (H)	⑭ SECAM 0.9Vp-p (H)	⑭ NT3.58 0.9Vp-p (H)		

U BOARD IC8501 MC14052BCP

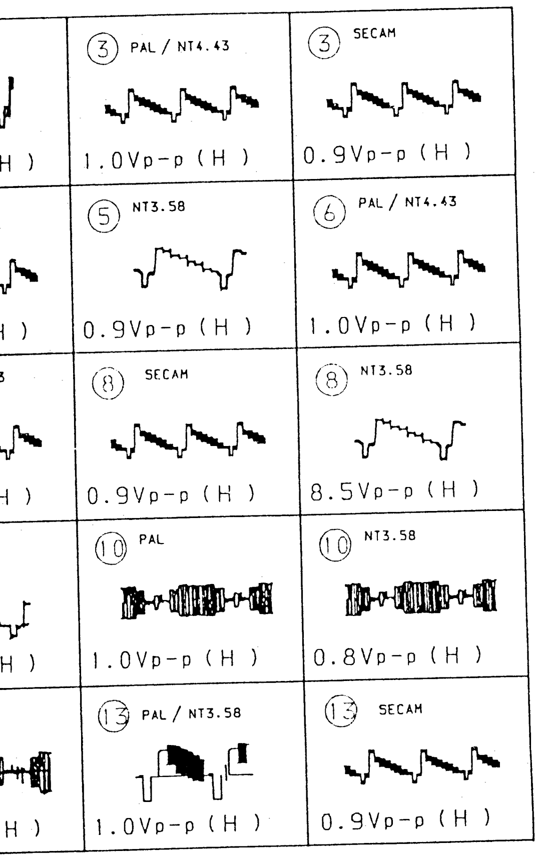

X0 ⑫
X1 ⑭
X2 ⑮
X3 ⑪
⑬ XC
OPEN
Y0 ①
Y1 ⑤
Y2 ②
④
③ YC
OPEN
A ⑩
B ⑨
⑥ EN
⑦ VEE

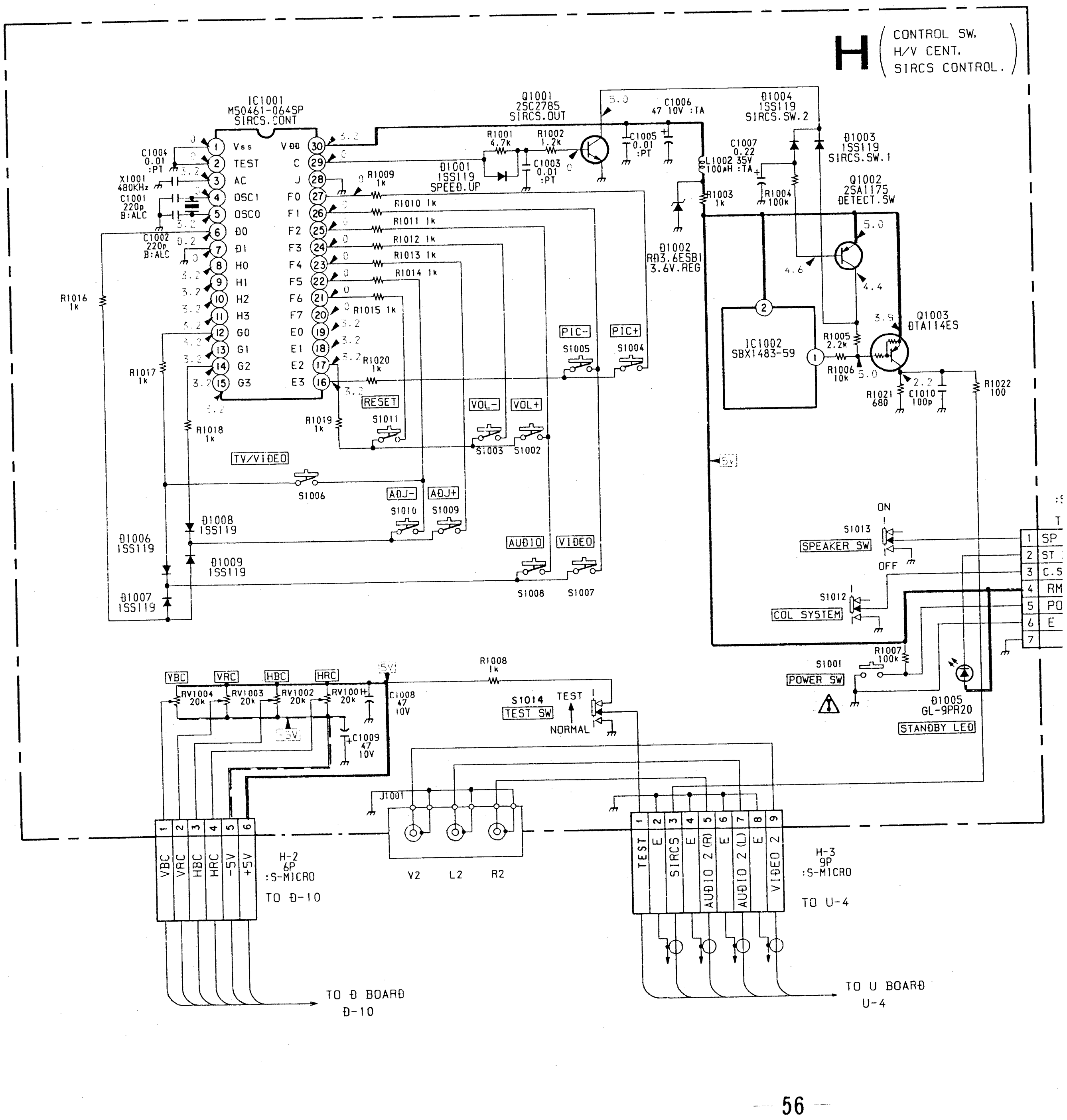

Q609 2SC2551
Q610 2SC2785
Q615 2SC2551
REG CONTROL
REG AMP
Q603 2SD1138 REG AMP
D627 RD5.1ESB2
D628 RD5.1ESB2
REG REF
135V
1 135V
2 E
3 E
4 15.5V
5 E
6 -15.5V
7 E
8 E
9 -135V
9P RED :S-MICRO
TO A BOARD A-22
1 230V
2 NC
3 +H
4 -H
5 NC
6 E
6P WHT :S-MICRO
TO CB BOARD CB-6
1 115V
2 NC
3 15.5V
4 E
4P WHT :S-MICRO
TO P BOARD P-1
1 45V
2 0V
3 0V
3P WHT :S-MICRO
TO A BOARD A-4
1 OVP
2 E
3 12V-IN
3P YELLOW :S-MICRO
TO A BOARD A-13
Q612 2SC2785 REG CONTROL
Q611 2SC2551 REG CONTROL
Q613 2SC2551 REG AMP
Q614 2SC2688 REG AMP
Q606 2SD2012 REG
Q604 2SB861 REG AMP
Q617 2SA1220 LIMITER
Q619 2SA1015 REG CONTROL AMP
Q621 2SA1175 PROTECT
Q623 2SA1175-F PROTECT OVP
Q622 2SC2785-F PROTECT OVP
Q618 2SA1175 LIMITER
Q605 2SC2785 LIMITER
Q620 2SC2785 SLOW START
IC601 SE115 REG REF CONTROL
D619 GP-08 POWER BACK UP
D618 GP-08B POWER BACK UP
D629 RD18ESB3 PROTECT
D633 RD-33ESB2 OVP REF
D632 1SS119 CLAMP
D634 1SS119 CLAMP
D635 SB140 RECT
D613 SB140 RECT
D624 RD-7.5ESB1 REG REF
T607
T606 CT
R621 100 :FPRD
45V
15.5V
115V
230V

CAUTION

When replacing IC601 and R621, be sure to check the B+ MAX check point voltage value.

Refer to the Safety Adjustment Section.


③ PAL / NT4.43
1.0Vp-p (H)
③ SECAM
0.9Vp-p (H)
⑤ NT3.58
0.9Vp-p (H)
⑥ PAL / NT4.43
1.0Vp-p (H)
⑧ SECAM
0.9Vp-p (H)
⑧ NT3.58
8.5Vp-p (H)
⑩ PAL
1.0Vp-p (H)
⑩ NT3.58
0.8Vp-p (H)
⑬ PAL / NT3.58
1.0Vp-p (H)
⑬ SECAM
0.9Vp-p (H)


H
CONTROL SW.
H/V CENT.
SIRCS CONTROL.
IC1001 M50461-064SP SIRCS CONT
Q1001 2SC2785 SIRCS.OUT
D1004 1SS119 SIRCS.SW.2
D1003 1SS119 SIRCS.SW.1
Q1002 2SA1175 DETECT.SW
D1001 1SS119 SPEED.UP
D1002 RD3.6ESB1 3.6V.REG
IC1002 SBX1483-59
Q1003 DTA114ES
PIC- PIC+
VOL- VOL+
RESET
TV/VIDEO
ADJ- ADJ+
AUDIO VIDEO
SPEAKER SW
COL SYSTEM
POWER SW
TEST SW
TEST NORMAL
D1005 GL-9PR20
STANDBY LED
ON OFF
VBC VRC HBC HRC
RV1004 RV1003 RV1002 RV1001
H-2 6P :S-MICRO
TO D-10
VBC VRC HBC HRC -5V +5V
J1001
V2 L2 R2
TEST E SIRCS E AUDIO 2 (R) E AUDIO 2 (L) E VIDEO 2
H-3 9P :S-MICRO
TO U-4
TO D BOARD D-10
TO U BOARD U-4

– U Board –

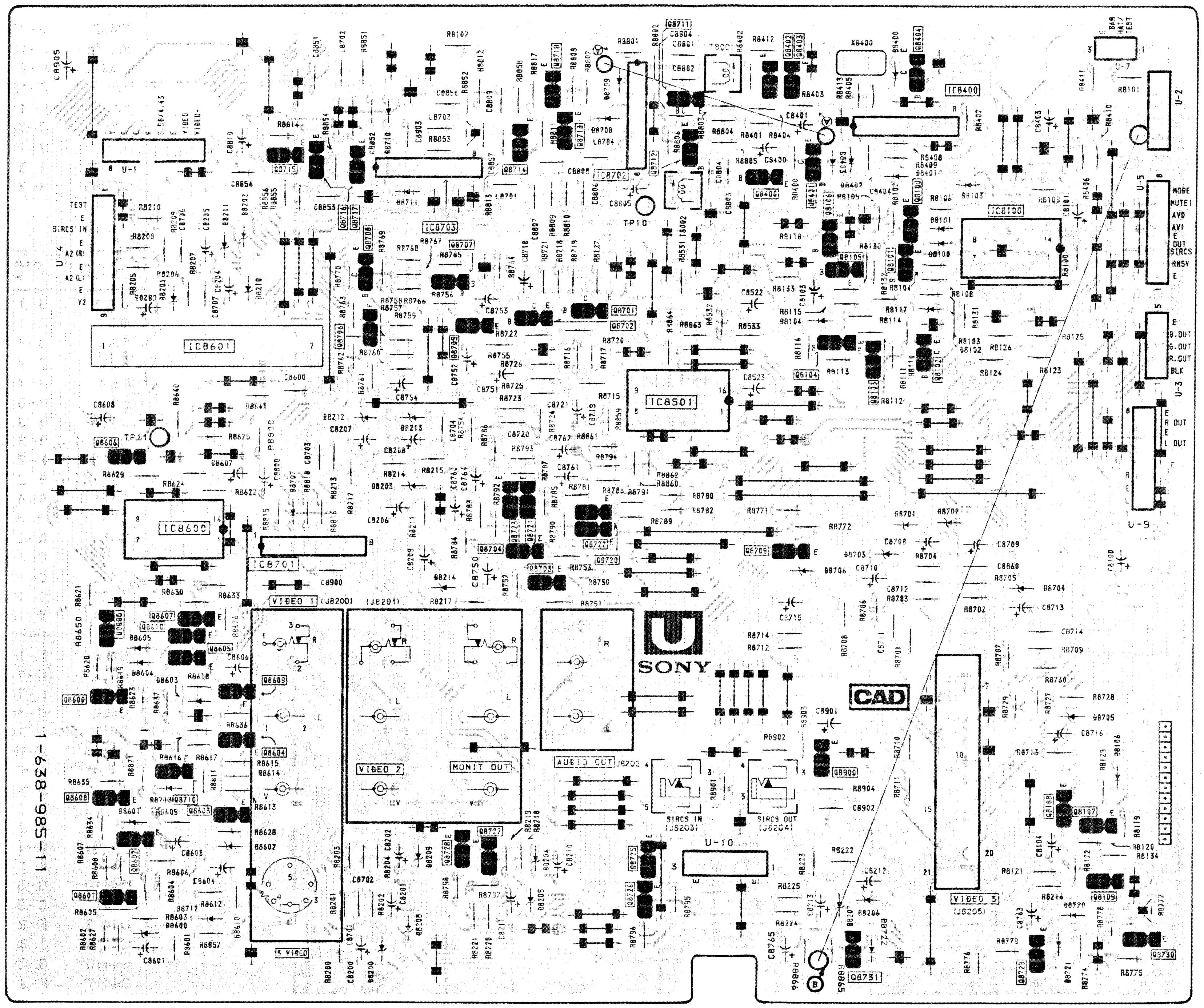
U VIDEO SW, AUDIO CONTROL, AUDIO SW, A/V/S-VIDEO, INPUT/OUTPUT

U BOARD

IC	
IC8100	C-3
IC8400	E-7
IC8500	B-5
IC8501	B-7
IC8503	F-7
IC8600	D-1
IC8600	C-1

TRANSISTOR	
Q103	C-6
Q104	D-7
Q105	D-7
Q106	D-7
Q8001	C-6
Q8002	C-3
Q8100	C-4
Q8101	C-4
Q8102	B-4
Q8103	C-4
Q8104	C-5
Q8105	D-4
Q8106	D-4
Q8107	D-6
Q8108	D-6
Q8109	D-6
Q8400	D-7
Q8401	E-6
Q8402	D-7
Q8403	D-7
Q8404	E-7
Q8500	B-6
Q8501	B-6
Q8600	E-2
Q8601	F-2
Q8602	F-1
Q8603	E-2
Q8604	E-2
Q8605	E-1
Q8606	D-2
Q8607	E-1
Q8608	F-1
Q8609	E-1
Q8610	E-1

DIODE	
D8100	C-4
D8101	C-4
D8102	C-4
D8103	C-4
D8104	C-5
D8106	D-3
D8200	E-3
D8201	B-7
D8202	C-7
D8203	D-3
D8204	F-6
D8205	F-6
D8206	E-6
D8207	E-6
D8208	E-3
D8209	E-3
D8210	B-8
D8211	C-7
D8212	D-4
D8213	E-5
D8214	C-6
D8400	E-7
D8401	D-6
D8500	B-6
D8600	F-2
D8601	F-2
D8602	E-2
D8603	E-2
D8604	E-2
D8605	D-2
D8606	A-1


VIDEO 1
(J8200)
(J8201)
VIDEO 2
MONIT OUT
AUDIO OUT
SIRCS IN
(J8203)
SIRCS OUT
(J8204)
VIDEO 3
(J8205)
S VIDEO
IC8600
IC8601
IC8701
IC8703
IC8702
IC8501
IC8400
IC8100
U-1
U-2
U-3
U-4
U-5
U-7
U-10
TP10
TP11
SONY
CAD
1-638-985-11

GBOARD

IC	
IC601	C-5

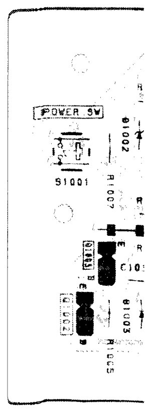
TRANSISTOR	
Q601	D-6
Q602	E-5
Q603	D-1
Q604	E-1
Q605	C-4
Q606	B-6
Q607	D-1
Q608	E-1
Q609	D-1
Q610	D-2
Q611	A-5
Q612	A-5
Q613	A-6
Q614	A-6
Q615	D-1
Q616	E-2
Q617	B-4
Q618	C-4
Q619	C-4
Q620	B-5
Q621	B-5
Q622	B-5
Q623	B-5

DIODE	
D601	E-4
D602	D-6
D607	E-6
D608	C-6
D609	C-2
D610	C-2
D611	C-2
D612	C-2
D613	B-6
D615	A-4
D616	D-2
D617	A-4
D618	C-5
D619	A-4
D620	A-3
D621	B-3
D622	C-2
D623	A-3
D624	B-6
D626	A-5
D627	D-1
D628	E-1
D629	B-5
D630	B-4
D631	C-5
D632	B-5
D633	B-4
D634	B-5
D635	B-6

VARIABLE TRANSISTOR	
RV601	D-1
RV602	D-2
RV603	A-4

– (

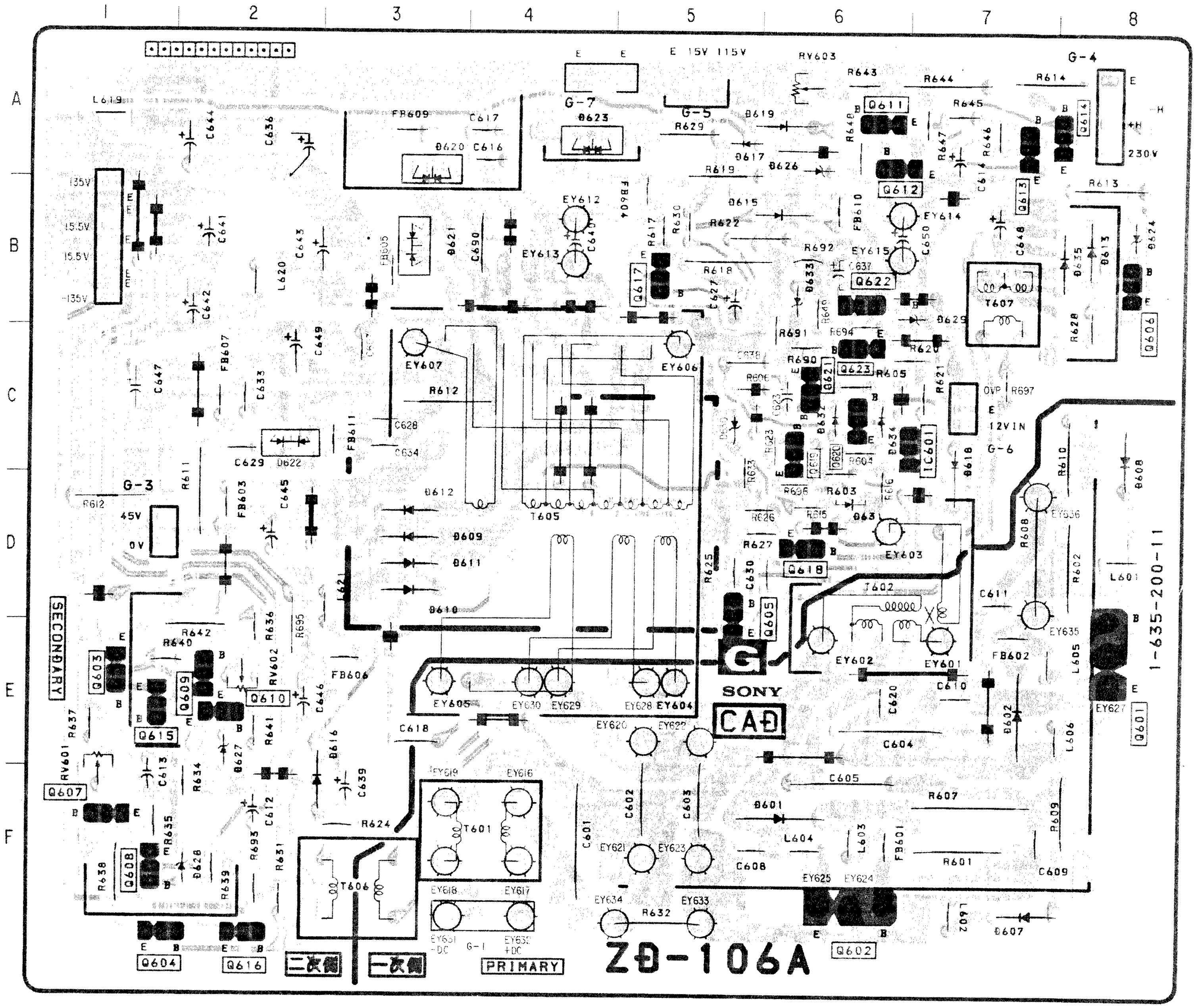
–H Board –


POWER SW
S1001

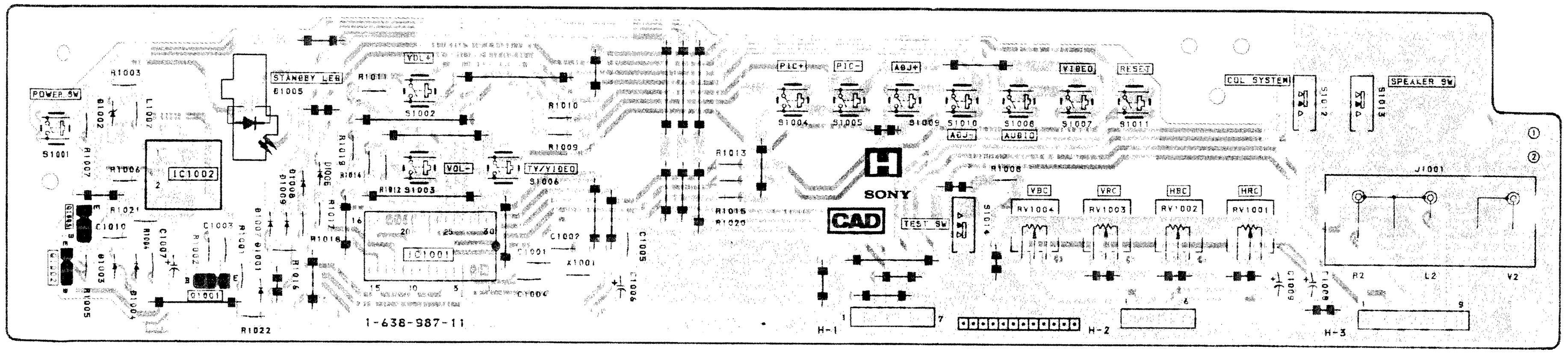
B-4
C-5
B-5
B-4
B-5
B-6

ABLE
SISTOR
D-1
D-2
A-4

— G Board — **G** [POWER SUPPLY] **H** [CONTROL SW, H/V CENT, SIRCS CONTROL]

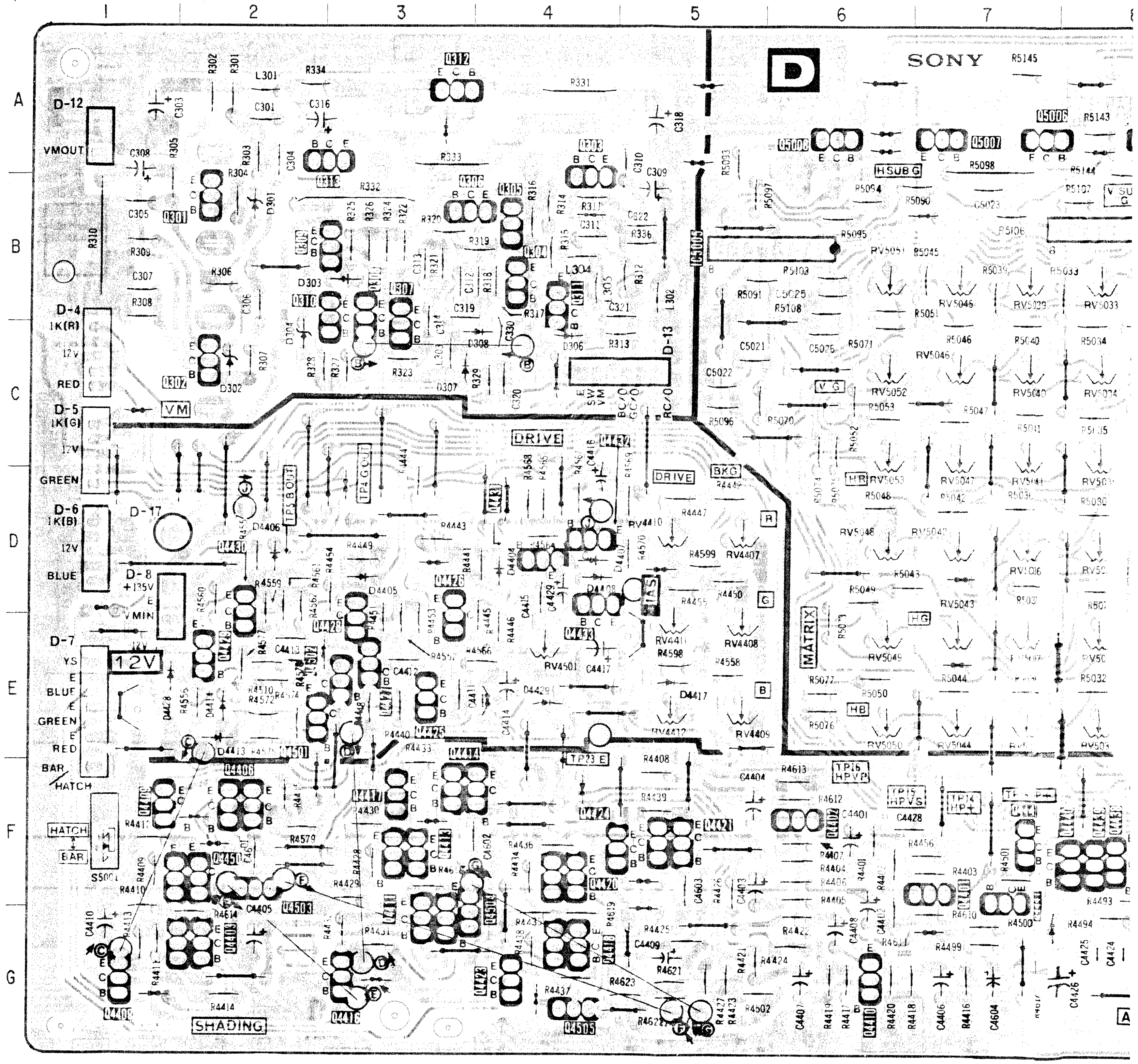

1
2
3
4
5
6
7
8
A
B
C
D
E
F
G-4
G-5
G-6
G-7
G-3
15V
115V
230V
135V
15.5V
45V
0V
12VIN
OVP
RY603
T601
T602
T605
T606
T607
IC601
Q601
Q602
Q603
Q604
Q605
Q606
Q607
Q608
Q609
Q610
Q611
Q612
Q613
Q614
Q615
Q616
Q617
Q618
Q621
Q622
Q623
RV601
RV602
SECONDARY
PRIMARY
二次側
一次側
SONY
CAD
ZD-106A
1-635-200-11

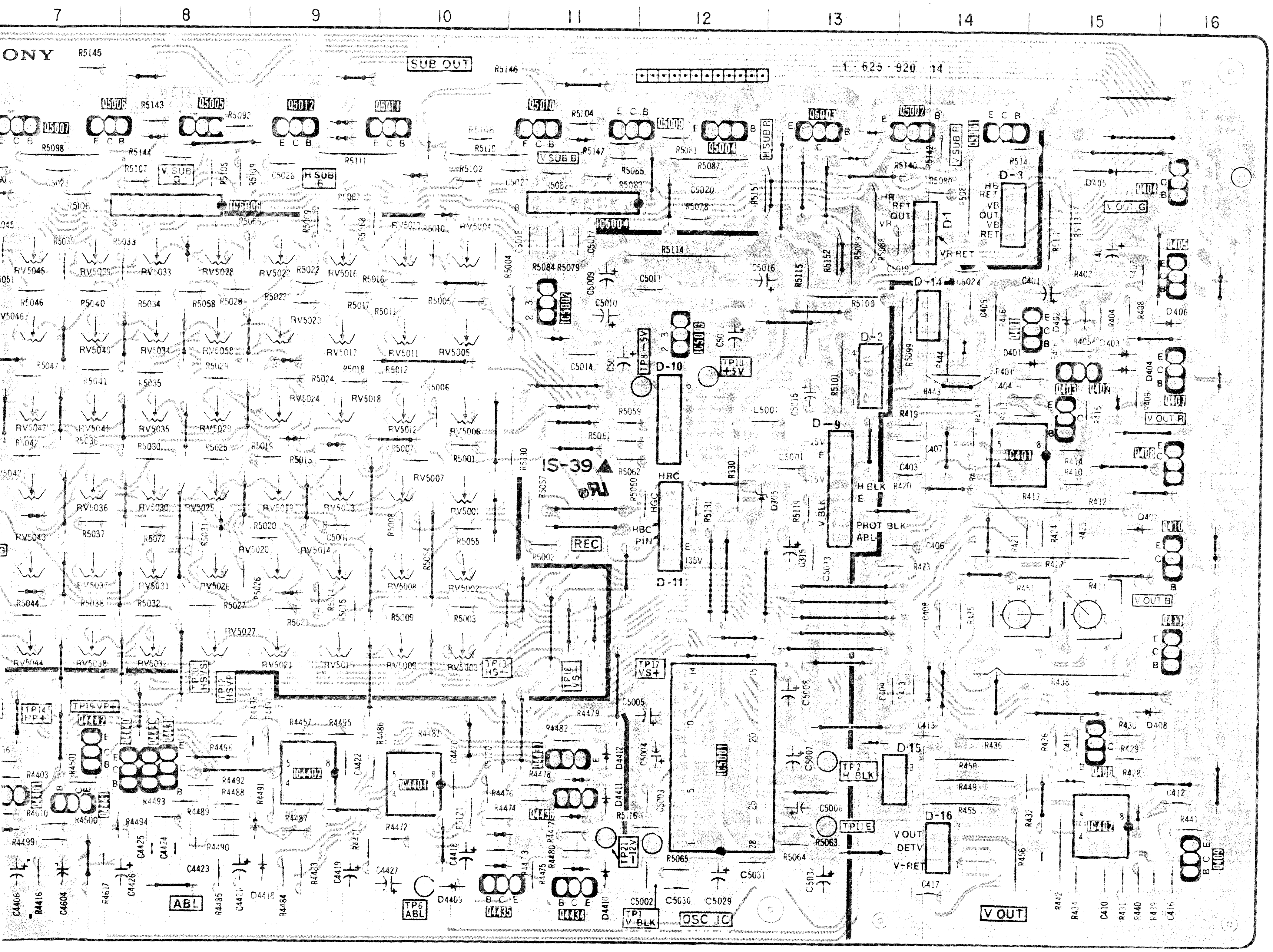
—H Board —


POWER SW
STANDBY LED
VOL+
VOL-
TV/VIDEO
PIC+
PIC-
ADJ+
ADJ-
VIDEO
AUDIO
RESET
COL SYSTEM
SPEAKER SW
TEST SW
VBC
VRC
HBC
HRC
RV1001
RV1002
RV1003
RV1004
IC1001
IC1002
J1001
S1001
S1002
S1003
S1004
S1005
S1006
S1007
S1009
S1010
S1011
H-1
H-2
H-3
H
SONY
CAD
1-638-987-11
①
②

— D Board —

D REGISTRATION GENE, ABL, VIDEO DRIVE, SHADING CORR, R. G. B V OUT, H/V SUB OUT, VM OUT, REGISTRATION MATRIX


1
2
3
4
5
6
7
A
B
C
D
E
F
G
D
SONY
D-12
VMOUT
D-4
IK(R)
12V
RED
D-5
IK(G)
12V
GREEN
D-6
IK(B)
12V
BLUE
D-17
D-8
+135V
VMIN
D-7
YS
BLUE
GREEN
RED
BAR
HATCH
12V
HATCH
BAR
S5001
VM
DRIVE
BKG
HSUB G
V G
HR
HG
HB
MATRIX
BIAS
SHADING
D-13
TP23 E
TP16 HPVP
TP15 HPVS
TP14 HP+
Q312
Q313
Q301
Q302
Q303
Q304
Q305
Q306
Q307
Q308
Q309
Q310
Q311
Q5005
Q5006
Q5007
Q5008
L301
L302
L304
L305
R331
R332
R333
R334
R5145
R5143
R5144
R5098
R5095
R5103
R5108
RV5051
RV5046
RV5039
RV5033
RV5052
RV5040
RV5034
RV5053
RV5047
RV5041
RV5048
RV5049
RV5050
RV5044
RV5043
RV4407
RV4408
RV4409
RV4410
RV4411
RV4412
RV4501
C4404
C4401
C4428
D4406
D4405
D4417
D4413


7
8
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12
13
14
15
16
SONY
SUB OUT
1-625-920-14
IS-39
REC
HBC
PIN
HRC
D-1
D-2
D-3
D-9
D-10
D-11
D-14
D-15
D-16
H BLK
PROT BLK
ABL
V BLK
V OUT G
V OUT R
V OUT B
V OUT
VOUT
DETV
V-RET
HR RET OUT VR
HS RET VB OUT VB RET
V SUB B
V SUB G
H SUB B
H SUB R
V SUB R
TP8 +5V
TP10 +5V
TP17 VS+
TP18 VS-
TP15 VP+
TP14 HP+
TP2 H BLK
TP11 E
TP21 -12V
TP1 V BLK
TP6 ABL
ABL
OSC IC
IC5001
IC5002
IC5003
IC5004
IC5006
IC401
IC402
IC4401
IC4402
Q5001
Q5002
Q5003
Q5004
Q5005
Q5006
Q5007
Q5008
Q5009
Q5010
Q5011
Q5012
Q4434
Q4435
Q4436
L5001
L5002

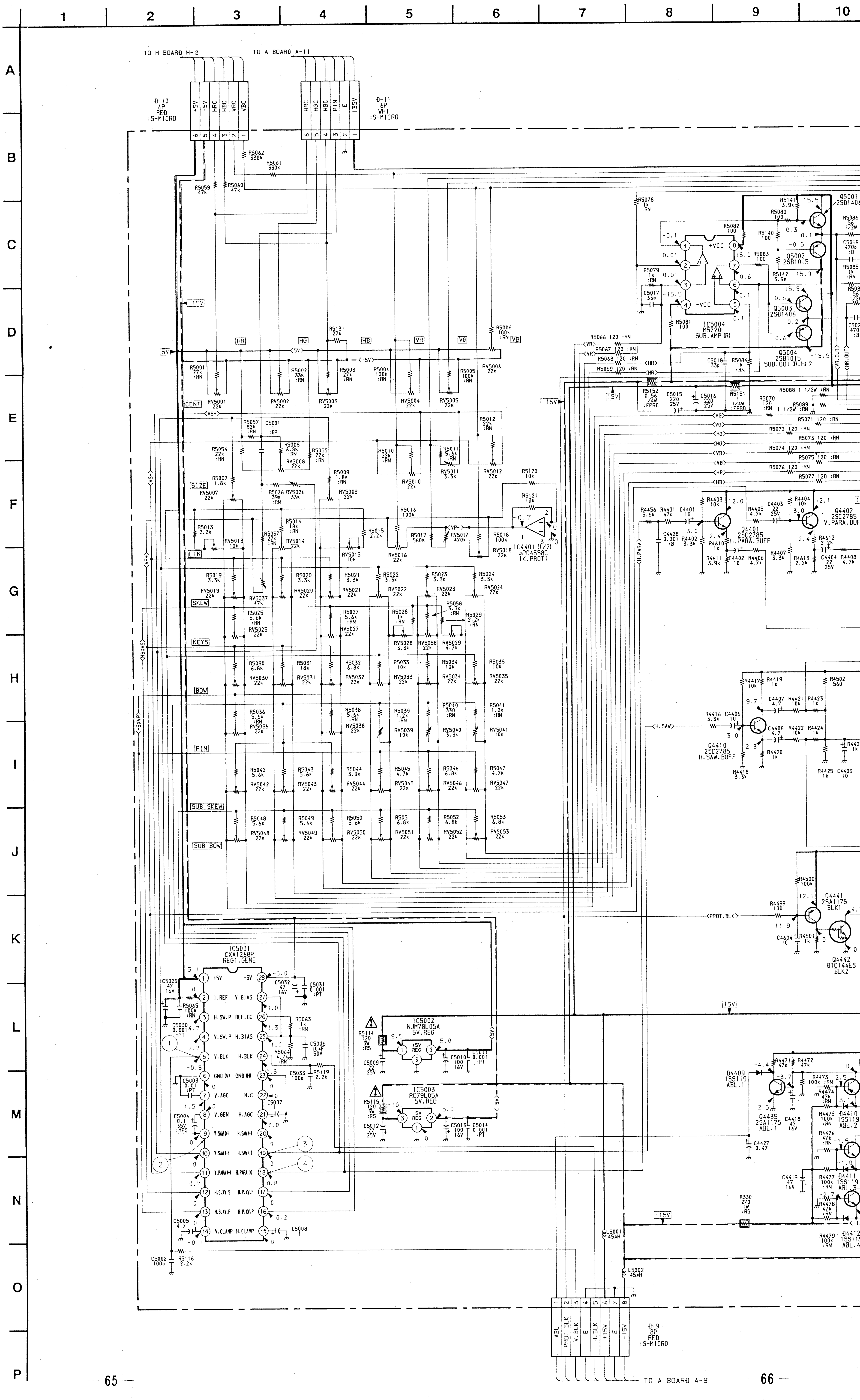
D BOARD

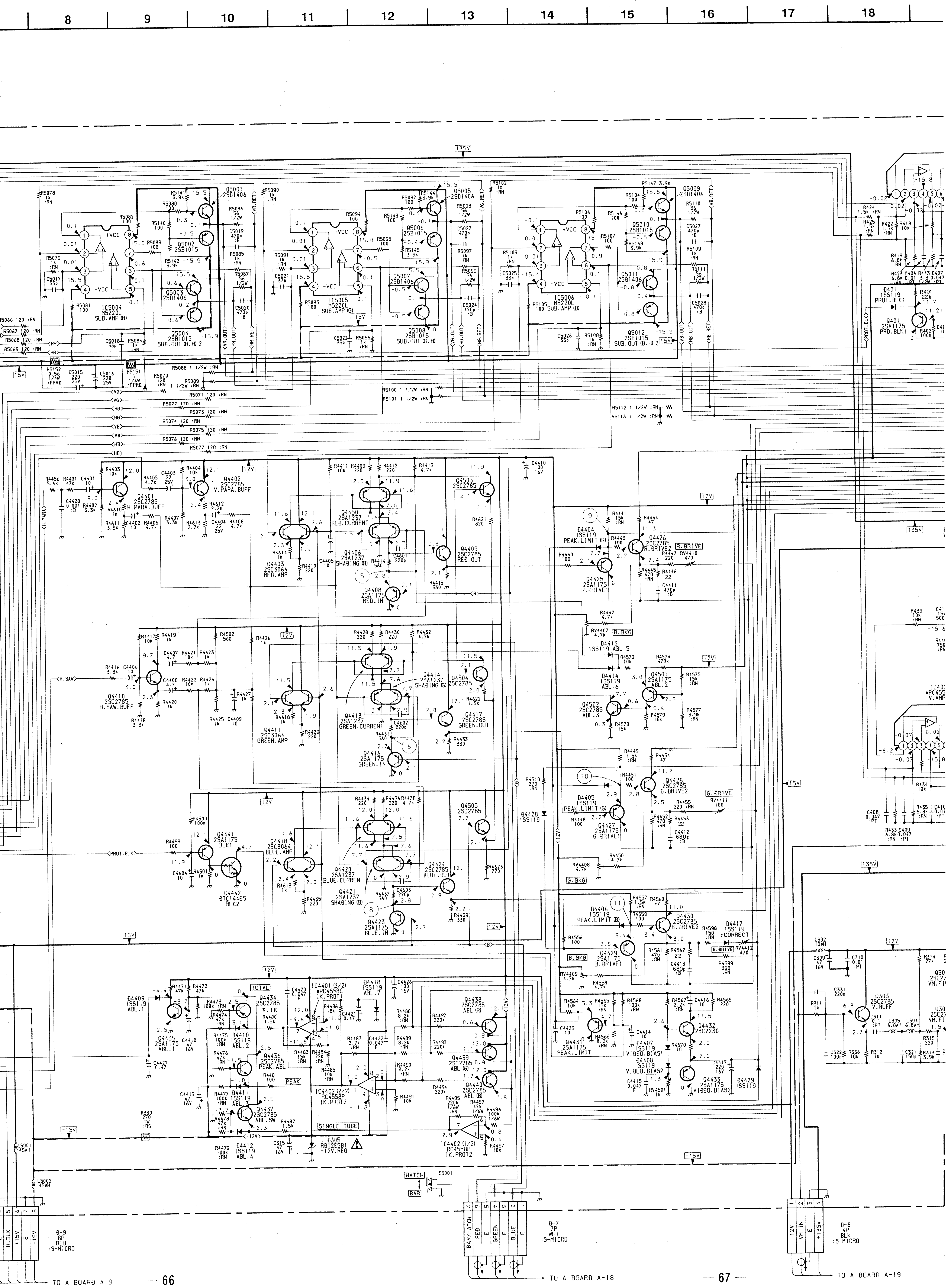
IC	
IC401	D-14
IC402	G-15
IC4401	F-10
IC4402	F-9
IC5001	F-12
IC5002	C-11
IC5003	C-12
IC5004	B-11
IC5005	B-5
IC5006	B-8

TRANSISTOR	
Q301	B-1
Q302	C-1
Q303	B-4
Q304	B-4
Q305	B-4
Q306	B-3
Q307	B-3
Q308	B-3
Q309	B-2
Q310	B-2
Q311	B-4
Q312	A-3
Q313	B-2
Q401	C-14
Q402	C-15
Q403	C-15
Q404	B-15
Q405	B-16
Q406	F-15
Q407	C-17
Q408	D-16
Q409	G-16
Q410	D-16
Q411	E-16
Q4401	F-7
Q4402	F-6
Q4403	G-2
Q4406	F-2
Q4408	G-1
Q4409	F-1
Q4410	G-6
Q4411	G-3
Q4413	F-3
Q4414	E-3
Q4416	G-3
Q4417	F-3
Q4418	G-4
Q4420	F-4
Q4421	F-5
Q4423	G-4
Q4424	F-4
Q4425	E-3
Q4426	D-3
Q4427	E-3
Q4428	E-2
Q4429	E-2
Q4430	D-2
Q4431	D-4
Q4432	C-4
Q4433	E-4
Q4434	G-11
Q4435	G-10
Q4436	G-11
Q4437	F-11
Q4438	F-8
Q4439	F-8
Q4440	F-8
Q4441	F-7
Q4442	F-7
Q4450	F-2
Q4501	E-2
Q4502	E-2
Q4503	F-2
Q4504	G-4
Q4505	G-4
Q5001	A-14
Q5002	A-14
Q5003	A-13
Q5004	A-12
Q5005	A-8
Q5006	A-7
Q5007	A-7
Q5008	A-6
Q5009	A-12
Q5010	A-11
Q5011	A-10
Q5012	A-9

DIODE	
D301	B-2
D302	C-2
D303	B-2
D304	C-2
D305	D-13
D306	C-4
D307	C-3
D308	C-4
D401	C-14
D402	C-15
D403	C-15
D404	C-15
D405	B-15
D406	C-16
D407	D-15
D408	F-16
D4404	D-4
D4405	D-3
D4406	D-2
D4407	D-5
D4408	D-4
D4409	G-10
D4410	G-11
D4411	F-11
D4412	F-11
D4413	E-3
D4414	E-2
D4417	E-5
D4418	G-9
D4428	E-1
D4429	E-4

VARIABLE RESISTOR	
RV4407	D-5
RV4408	E-5
RV4409	E-5
RV4410	D-5
RV4411	
RV4412	E-5
RV4501	E-4
RV5001	D-10
RV5002	E-10
RV5003	E-10
RV5004	B-10
RV5005	C-10
RV5006	D-10
RV5007	D-10
RV5008	E-10
RV5009	E-10
RV5010	B-10
RV5011	C-10
RV5012	D-10
RV5013	D-9
RV5014	E-9
RV5015	E-9
RV5016	B-9
RV5017	C-9
RV5018	C-9
RV5019	D-9
RV5020	E-9
RV5021	E-9
RV5022	B-9
RV5023	C-9
RV5024	C-9
RV5025	D-8
RV5026	E-8
RV5027	E-8
RV5028	B-8
RV5029	D-8
RV5030	D-8
RV5031	E-8
RV5032	E-8
RV5033	B-8
RV5034	C-8
RV5035	D-8
RV5036	D-7
RV5037	E-7
RV5038	E-7
RV5039	B-7
RV5040	C-7
RV5041	D-7
RV5042	D-7
RV5043	D-7
RV5044	E-7
RV5045	B-7
RV5046	C-7
RV5047	D-7
RV5048	D-6
RV5049	E-6
RV5050	E-6
RV5051	B-6
RV5052	C-6
RV5053	D-6
RV5058	C-8


TO H BOARD H-2
TO A BOARD A-11
D-10 6P RED :S-MICRO
+5V -5V HRC HBC VRC VBC
D-11 6P WHT :S-MICRO
HRC HGC HBC PIN E 135V
CENT
SIZE
LIN
SKEW
KEYS
BOW
PIN
SUB SKEW
SUB BOW
IC5001 CXA1268P REGI.GENE
IC5002 NJM78L05A 5V.REG
IC5003 RC79L05A -5V.REG
IC5004 M5220L SUB.AMP (R)
IC4401 (1/2) μPC4558C 1K.PROT1
Q5001 2SD1406
Q5002 2SB1015
Q5003 2SD1406
Q5004 2SB1015 SUB.OUT (R.H) 2
Q4401 2SC2785 H.PARA.BUFF
Q4402 2SC2785 V.PARA.BUFF
Q4410 2SC2785 H.SAW.BUFF
Q4441 2SA1175 BLK1
Q4442 DTC144ES BLK2
Q4435 2SA1175 ABL.1
D4409 1SS119 ABL.1
D4410 1SS119 ABL.2
D4411 1SS119 ABL.3
D4412 1SS119 ABL.4
L5001 45μH
L5002 45μH
D-9 8P RED :S-MICRO
ABL PROT BLK V.BLK E H.BLK +15V E -15V
TO A BOARD A-9


8
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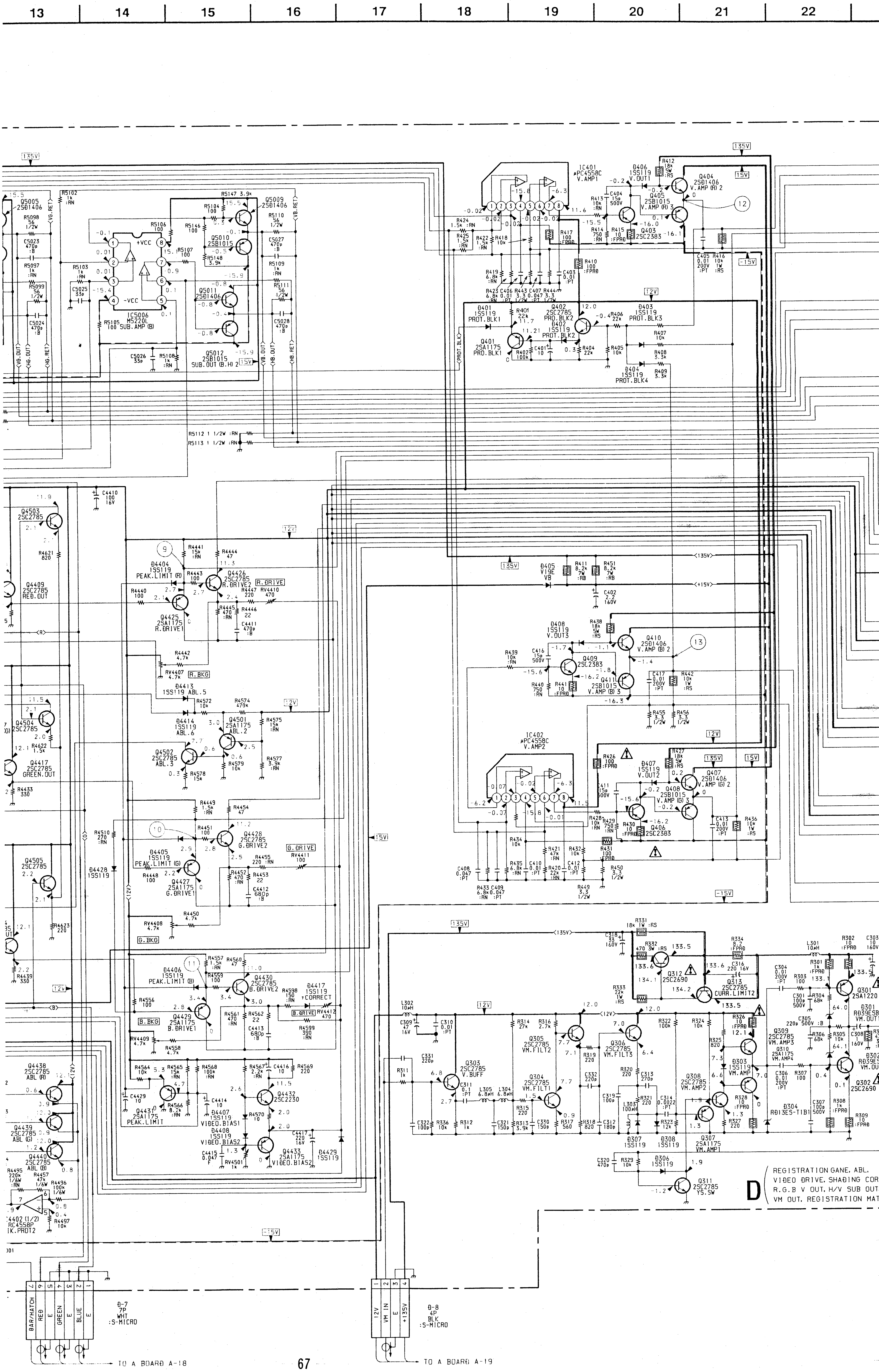
17
18
135V
IC5004 M5220L SUB.AMP (R)
IC5005 M5220L SUB.AMP (G)
IC5006 M5220L SUB.AMP (B)
Q5001 2SD1406
Q5002 2SB1015
Q5003 2SD1406
Q5004 2SB1015 SUB.OUT (R.H) 2
Q5005 2SD1406
Q5006 2SD1406
Q5007 2SD1406
Q5008 2SB1015 SUB.OUT (G.H)
Q5009 2SD1406
Q5010 2SB1015
Q5011 2SD1406
Q5012 2SB1015 SUB.OUT (B.H) 2
Q4401 2SC2785 H.PARA.BUFF
Q4402 2SC2785 V.PARA.BUFF
Q4403 2SC3064 RED.AMP
Q4406 2SA1237 SHADING (R)
Q4450 2SA1237 RED.CURRENT
Q4503 2SC2785
Q4409 2SC2785 RED.OUT
Q4408 2SA1175 RED.IN
Q4404 1SS119 PEAK.LIMIT (R)
Q4426 2SC2785 R.DRIVE2
Q4425 2SA1175 R.DRIVE1
R.DRIVE
R.BKG
D4413 1SS119 ABL.5
D4414 1SS119 ABL.6
Q4501 2SA1175 ABL.2
Q4502 2SC2785 ABL.3
Q4410 2SC2785 H.SAW.BUFF
Q4411 2SC3064 GREEN.AMP
Q4413 2SA1237 GREEN.CURRENT
Q4414 2SA1237 SHADING (G)
Q4504 2SC2785
Q4417 2SC2785 GREEN.OUT
Q4416 2SA1175 GREEN.IN
D4405 1SS119 PEAK.LIMIT (G)
Q4428 2SC2785 G.DRIVE2
Q4427 2SA1175 G.DRIVE1
G.DRIVE
G.BKG
D4428 1SS119
Q4441 2SA1175 BLK1
Q4442 DTC144ES BLK2
Q4418 2SC3064 BLUE.AMP
Q4420 2SA1237 BLUE.CURRENT
Q4421 2SA1237 SHADING (B)
Q4505 2SC2785
Q4424 2SC2785 BLUE.OUT
Q4423 2SA1175 BLUE.IN
D4406 1SS119 PEAK.LIMIT (B)
Q4430 2SC2785 B.DRIVE2
Q4429 2SA1175 B.DRIVE1
D4417 1SS119 γCORRECT
B.DRIVE
B.BKG
D4409 1SS119 ABL.1
Q4435 2SA1175 ABL.1
Q4434 2SC2785 E.1K
TOTAL
D4410 1SS119 ABL.2
Q4436 2SC2785 PEAK.ABL
PEAK
D4411 1SS119 ABL.3
Q4437 2SC2785 ABL.SW
D4412 1SS119 ABL.4
IC4401 (2/2) μPC4558C IK.PROT1
D4418 1SS119 ABL.7
IC4402 (2/2) RC4558P IK.PROT2
SINGLE TUBE
Q305 RD12ESB1 -12V.REG
Q4438 2SC2785 ABL (R)
Q4439 2SC2785 ABL (G)
Q4440 2SC2785 ABL (B)
IC4402 (1/2) RC4558P IK.PROT2
Q4431 2SA1175 PEAK.LIMIT
Q4432 2SC2230
D4407 1SS119 VIDEO.BIAS1
D4408 1SS119 VIDEO.BIAS2
Q4433 2SA1175 VIDEO.BIAS2
D4429 1SS119
D401 1SS119 PROT.BLK1
Q401 2SA1175 PRO.BLK1
IC402 V.AMP
Q303 2SC2785 V.BUFF
HATCH
BAR
S5001
12V
15V
-15V
-12V
H.PARA
H.SAW
PROT.BLK
D-9 8P RED :S-MICRO
H.BLK
+15V
E
-15V
TO A BOARD A-9
D-7 7P WHT :S-MICRO
BAR/HATCH
RED
GREEN
BLUE
TO A BOARD A-18
D-8 4P BLK :S-MICRO
12V
VM IN
+135V
TO A BOARD A-19



13
14
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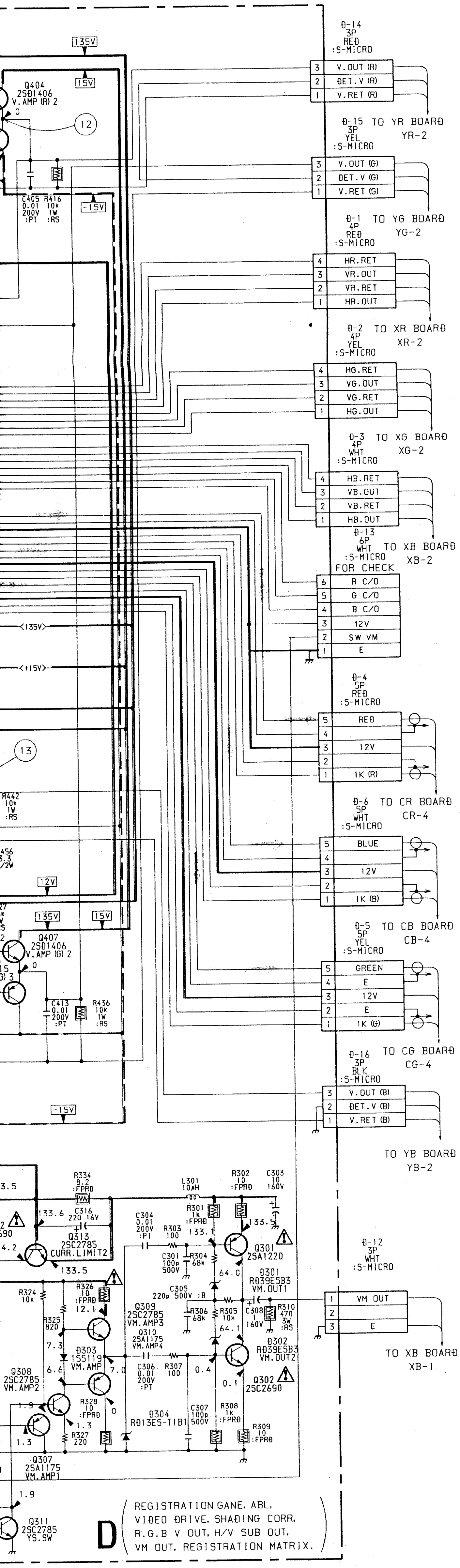
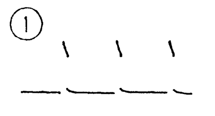
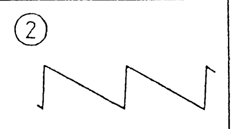
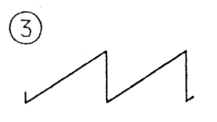
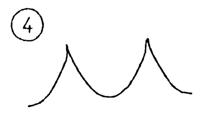
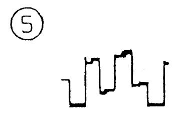
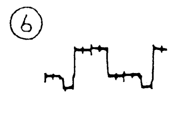
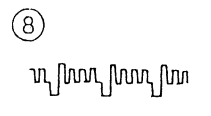
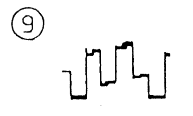
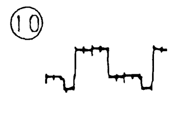
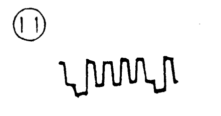
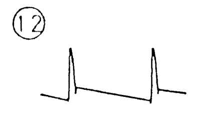
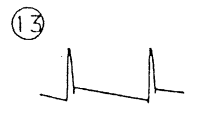
18
19
20
21
22
135V
Q5005 2SD1406
Q5009 2SD1406
Q5010 2SB1015
Q5011 2SD1406
Q5012 2SB1015 SUB.OUT (B.H) 2
IC5006 M5220L SUB.AMP (B)
+VCC
-VCC
VG.OUT
VG.RET
VB.OUT
VB.RET
HB.OUT
HB.RET
R5112 1 1/2W :RN
R5113 1 1/2W :RN
IC401 μPC4558C V.AMP1
D406 1SS119 V.OUT1
Q404 2SD1406 V.AMP (R) 2
Q405 2SB1015 V.AMP (R) 3
Q403 2SC2383
D401 1SS119 PROT.BLK1
Q401 2SA1175 PRO.BLK1
Q402 2SC2785 PRO.BLK2
D402 1SS119 PROT.BLK2
D403 1SS119 PROT.BLK3
D404 1SS119 PROT.BLK4
PROT.BLK
12V
15V
-15V
D405 V19E VB
<135V>
<+15V>
D408 1SS119 V.OUT3
Q410 2SD1406 V.AMP (B) 2
Q409 2SC2383
Q411 2SB1015 V.AMP (B) 3
IC402 μPC4558C V.AMP2
D407 1SS119 V.OUT2
Q407 2SD1406 V.AMP (G) 2
Q408 2SB1015 V.AMP (G) 3
Q406 2SC2383
Q4503 2SC2785
Q4409 2SC2785 RED.OUT
Q4504 2SC2785
Q4417 2SC2785 GREEN.OUT
Q4505 2SC2785
D4404 1SS119 PEAK.LIMIT (R)
Q4426 2SC2785 R.DRIVE2
R.DRIVE
Q4425 2SA1175 R.DRIVE1
R.BKG
D4413 1SS119 ABL.5
D4414 1SS119 ABL.6
Q4501 2SA1175 ABL.2
Q4502 2SC2785 ABL.3
D4405 1SS119 PEAK.LIMIT (G)
Q4428 2SC2785 G.DRIVE2
G.DRIVE
Q4427 2SA1175 G.DRIVE1
G.BKG
D4428 1SS119
D4406 1SS119 PEAK.LIMIT (B)
Q4430 2SC2785 B.DRIVE2
D4417 1SS119 γCORRECT
B.DRIVE
Q4429 2SA1175 B.DRIVE1
B.BKG
Q4431 2SA1175 PEAK.LIMIT
Q4432 2SC2230
D4407 1SS119 VIDEO.BIAS1
D4408 1SS119 VIDEO.BIAS2
Q4433 2SA1175 VIDEO.BIAS2
D4429 1SS119
Q4438 2SC2785 ABL (R)
Q4439 2SC2785 ABL (G)
Q4440 2SC2785 ABL (B)
IC4402 (1/2) RC4558P BLK.PROT2
<R>
<B>
Q312 2SC2690
Q313 2SC2785 CURR.LIMIT2
Q301 2SA1220
RD39ESB
VM.OUT
Q303 2SC2785 V.BUFF
Q304 2SC2785 VM.FILT1
Q305 2SC2785 VM.FILT2
Q306 2SC2785 VM.FILT3
Q308 2SC2785 VM.AMP2
Q309 2SC2785 VM.AMP3
Q310 2SA1175 VM.AMP4
Q303 1SS119 VM.AMP
Q302 2SC2690
D304 RD13ES-T1B1
D307 1SS119
D308 1SS119
D306 1SS119
Q307 2SA1175 VM.AMP1
Q311 2SC2785 YS.SW
<12V>
BAR/HATCH
RED
E
GREEN
E
BLUE
E-7 7P WHT :S-MICRO
TO A BOARD A-18
12V
VM IN
E
+135V
E-8 4P BLK :S-MICRO
TO A BOARD A-19
D
REGISTRATION GANE, ABL,
VIDEO DRIVE, SHADING COR
R.G.B V OUT, H/V SUB OUT
VM OUT, REGISTRATION MAT

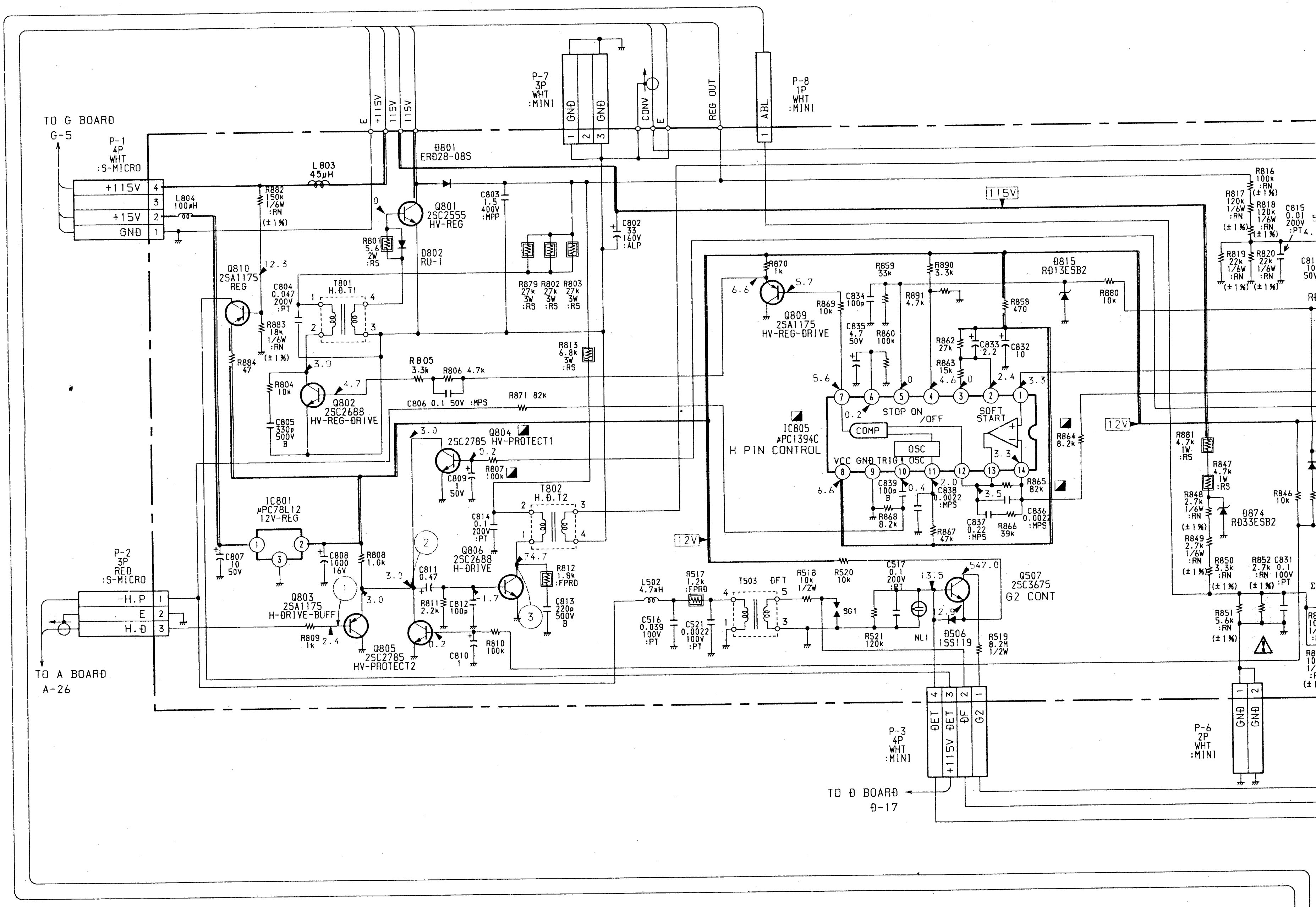

135V
Q404
2SD1406
V.AMP (R) 2
15V
12
C405 0.01 200V :PT
R416 10k 1W :RS
-15V
<135V>
<+15V>
13
R442 10k 1W :RS
12V
135V
15V
Q407
2SD1406
V.AMP (G) 2
C413 0.01 200V :PT
R436 10k 1W :RS
-15V
Ð-14 3P RED :S-MICRO
V.OUT (R)
DET.V (R)
V.RET (R)
Ð-15 TO YR BOARD YR-2 3P YEL :S-MICRO
V.OUT (G)
DET.V (G)
V.RET (G)
Ð-1 TO YG BOARD YG-2 4P RED :S-MICRO
HR.RET
VR.OUT
VR.RET
HR.OUT
Ð-2 TO XR BOARD XR-2 4P YEL :S-MICRO
HG.RET
VG.OUT
VG.RET
HG.OUT
Ð-3 TO XG BOARD XG-2 4P WHT :S-MICRO
HB.RET
VB.OUT
VB.RET
HB.OUT
Ð-13 6P WHT TO XB BOARD XB-2 :S-MICRO FOR CHECK
R C/O
G C/O
B C/O
12V
SW VM
E
Ð-4 5P RED :S-MICRO
RED
12V
1K (R)
Ð-6 TO CR BOARD CR-4 5P WHT :S-MICRO
BLUE
12V
1K (B)
Ð-5 TO CB BOARD CB-4 5P YEL :S-MICRO
GREEN
E
12V
E
1K (G)
Ð-16 TO CG BOARD CG-4 3P BLK :S-MICRO
V.OUT (B)
DET.V (B)
V.RET (B)
TO YB BOARD YB-2
R334 8.2 :FPRD
L301 10μH
R302 10 :FPRD
C303 10 160V
C316 220 16V
Q313 2SC2785 CURR.LIMIT2
C304 0.01 200V :PT
R303 100
R301 1k :FPRD
Q301 2SA1220
C301 100p 500V
R304 68k
D301 RD39ESB3 VM.OUT1
C305 220p 500V :B
R324 10k
R326 10 :FPRD
Q309 2SC2785 VM.AMP3
R306 68k
R305 10k
C308 1 160V
R310 470 3W :RS
R325 820
Q310 2SA1175 VM.AMP4
D302 RD39ESB3 VM.OUT2
D303 1SS119
VM.AMP
C306 0.01 200V :PT
R307 100
Q302 2SC2690
Q308 2SC2785 VM.AMP2
R328 10 :FPRD
R327 220
D304 RD13ES-T1B1
C307 100p 500V
R308 1k :FPRD
R309 10 :FPRD
Q307 2SA1175 VM.AMP1
Q311 2SC2785 YS.SW
Ð-12 3P WHT :S-MICRO
VM OUT
E
TO XB BOARD XB-1
D
REGISTRATION GANE, ABL, VIDEO DRIVE, SHADING CORR, R.G.B V OUT, H/V SUB OUT, VM OUT, REGISTRATION MATRIX.

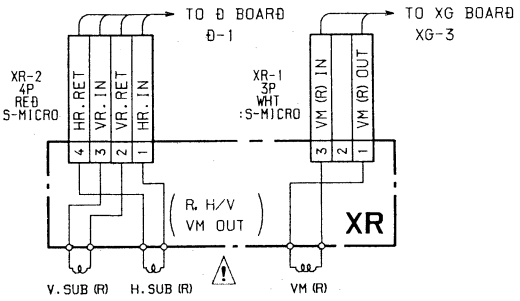
D BOARD WAVEFORM

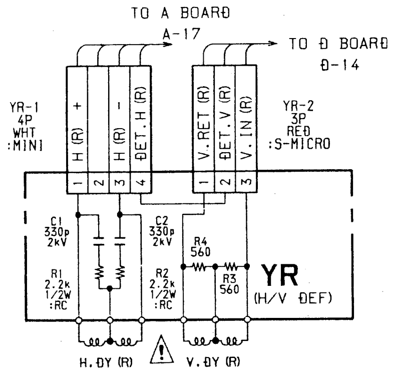
 6.4Vp-p (V)	 2.2Vp-p (V)	 2.2 Vp-p (H)
 2.5Vp-p (H)	 3.6 Vp-p (H)	 3.6Vp-p (H)
 3.8Vp-p (H)	 3.8Vp-p (H)	 3.6Vp-p (H)
 3.0Vp-p (H)	 110Vp-p (V)	 110Vp-p (V)

1 2 3 4 5 6 7 8 9 10

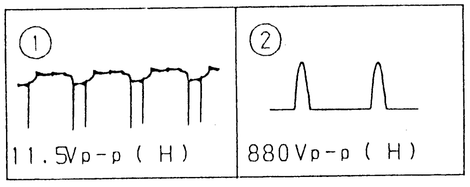
A B C D E F G H I J K L M N O

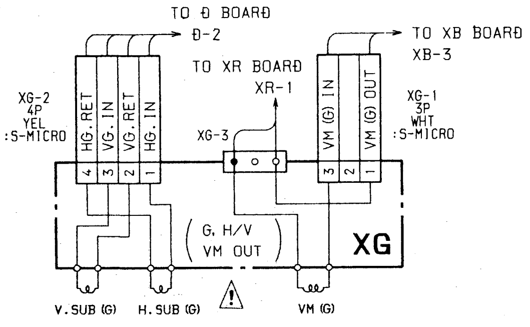

TO G BOARD G-5
P-1 4P WHT :S-MICRO
+115V
+15V
GND
L803 45μH
L804 100μH
R882 150k 1/6W :RN (±1%)
Q801 2SC2555 HV-REG
D801 ERD28-08S
D802 RU-1
R801 5.6 2W :RS
C803 1.5 400V :MPP
C802 33 160V :ALP
Q810 2SA1175 REG
T801 H.D.T1
C804 0.047 200V :PT
R883 18k 1/6W :RN (±1%)
R884 47
R804 10k
Q802 2SC2688 HV-REG-DRIVE
C805 330p 500V B
R805 3.3k
R806 4.7k
C806 0.1 50V :MPS
R871 82k
R879 R802 R803 27k 27k 27k 3W 3W 3W :RS :RS :RS
R813 6.8k 3W :RS
P-7 3P WHT :MINI
GND GND CONV E
REG OUT
P-8 1P WHT :MINI
ABL
115V
Q804 2SC2785 HV-PROTECT1
R807 100k
C809 1 50V
T802 H.D.T2
C814 0.1 200V :PT
Q806 2SC2688 H-DRIVE
R812 1.8k :FPRD
C813 220p 500V B
IC801 μPC78L12 12V-REG
C807 10 50V
C808 1000 16V
R808 1.0k
C811 0.47
R811 2.2k
C812 100p
Q803 2SA1175 H-DRIVE-BUFF
R809 1k
Q805 2SC2785 HV-PROTECT2
C810 1
R810 100k
P-2 3P RED :S-MICRO
-H.P
E
H.D
TO A BOARD A-26
R870 1k
Q809 2SA1175 HV-REG-DRIVE
R869 10k
C834 100p
C835 4.7 50V
R860 100k
R859 33k
R891 4.7k
R890 3.3k
D815 RD13ESB2
R880 10k
R858 470
R862 27k
R863 15k
C833 2.2
C832 10
IC805 μPC1394C H PIN CONTROL
STOP ON /OFF
SOFT START
COMP
OSC
VCC GND TRIG OSC
C839 100p B
R868 8.2k
C838 0.0022 :MPS
R867 47k
C837 0.22 :MPS
R866 39k
C836 0.0022 :MPS
R865 82k
R864 8.2k
12V
L502 4.7μH
R517 1.2k :FPRD
C516 0.039 100V :PT
C521 0.0022 100V :PT
T503 DFT
R518 10k 1/2W
R520 10k
SG1
R521 120k
C517 0.1 200V :BT
NL1
D506 1SS119
Q507 2SC3675 G2 CONT
R519 8.2M 1/2W
P-3 4P WHT :MINI
+115V DET DF G2
TO D BOARD D-17
P-6 2P WHT :MINI
GND GND
R816 100k :RN
R817 120k 1/6W :RN (±1%)
R818 120k 1/6W :RN (±1%)
C815 0.01 200V :PT
R819 22k 1/6W :RN (±1%)
R820 22k 1/6W :RN (±1%)
R881 4.7k 1W :RS
R847 4.7k 1W :RS
R848 2.7k 1/6W :RN (±1%)
D874 RD33ESB2
R846 10k
R849 2.7k 1/6W :RN (±1%)
R850 3.3k :RN (±1%)
R852 2.7k :RN (±1%)
C831 0.1 100V :PT
R851 5.6k :RN (±1%)

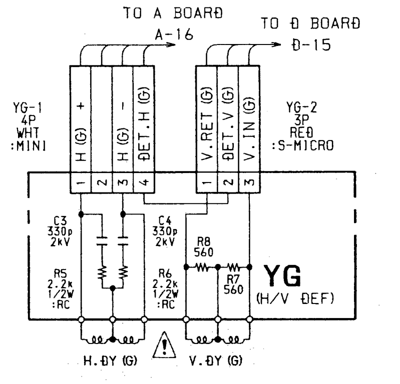

TO D BOARD D-1
TO XG BOARD XG-3
XR-2 4P RED :S-MICRO
HR.RET VR.IN VR.RET HR.IN
XR-1 3P WHT :S-MICRO
VM (R) IN VM (R) OUT
R. H/V VM OUT
XR
V.SUB (R) H.SUB (R) VM (R)

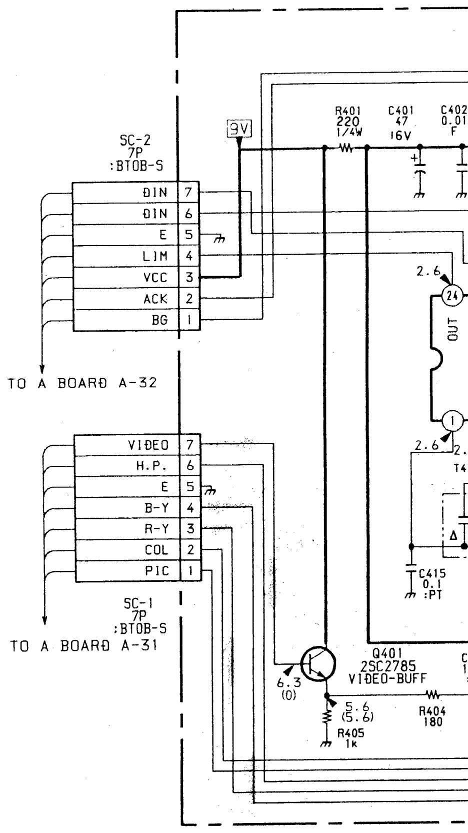

TO A BOARD A-17
TO D BOARD D-14
YR-1 4P WHT :MINI
H (R) + H (R) - DET.H (R)
YR-2 3P RED :S-MICRO
V.RET (R) DET.V (R) V.IN (R)
C1 330p 2kV
C2 330p 2kV
R4 560
R1 2.2k 1/2W :RC
R2 2.2k 1/2W :RC
R3 560
YR (H/V DEF)
H.DY (R) V.DY (R)

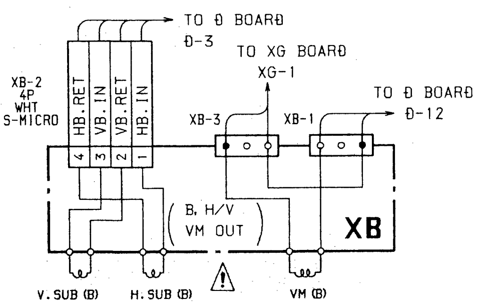
PC BOARD WAVEFORM

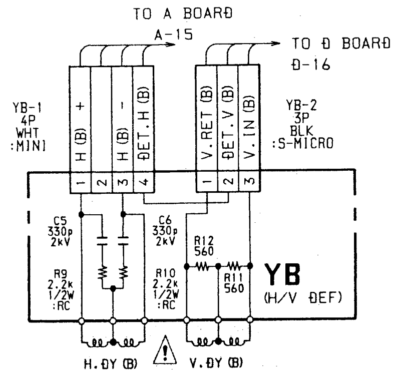


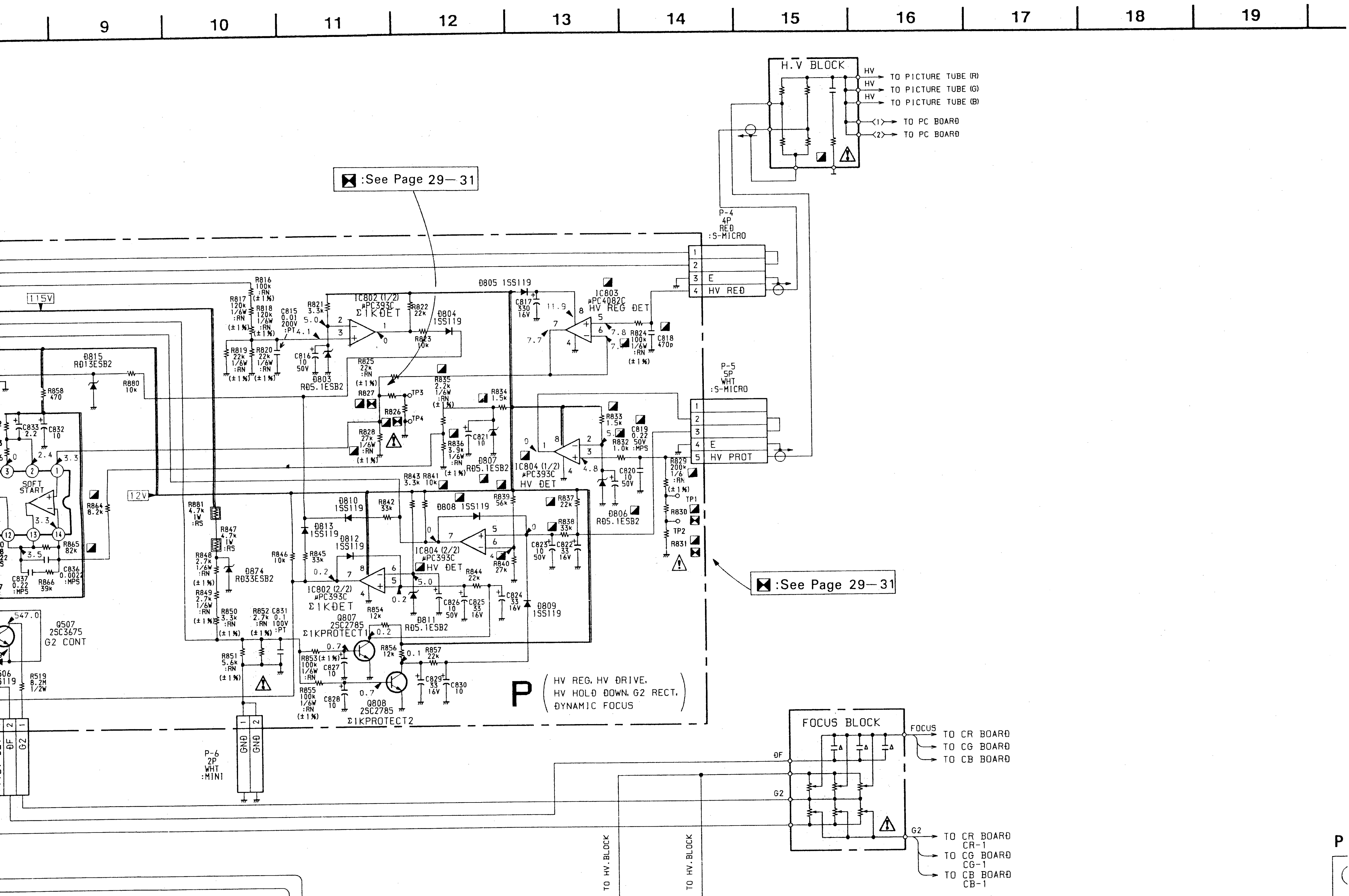

TO D BOARD D-2
TO XB BOARD XB-3
TO XR BOARD XR-1
XG-2 4P YEL :S-MICRO
HG.RET VG.IN VG.RET HG.IN
XG-3
XG-1 3P WHT :S-MICRO
VM (G) IN VM (G) OUT
G. H/V VM OUT
XG
V.SUB (G) H.SUB (G) VM (G)

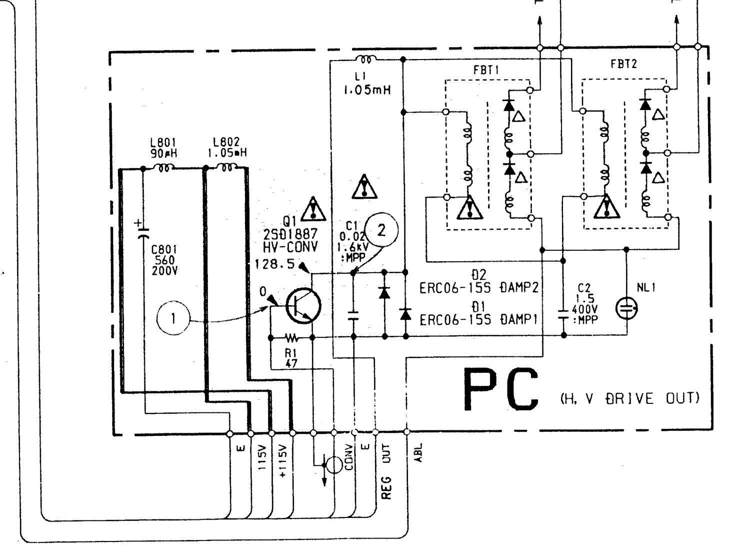

TO A BOARD A-16
TO D BOARD D-15
YG-1 4P WHT :MINI
H (G) + H (G) - DET.H (G)
YG-2 3P RED :S-MICRO
V.RET (G) DET.V (G) V.IN (G)
C3 330p 2kV
C4 330p 2kV
R8 560
R5 2.2k 1/2W :RC
R6 2.2k 1/2W :RC
R7 560
YG (H/V DEF)
H.DY (G) V.DY (G)


9V
R401 220 1/4W
C401 47 16V
C402 0.01
SC-2 7P :BTOB-S
DIN DIN E LIM VCC ACK BG
TO A BOARD A-32
VIDEO H.P. E B-Y R-Y COL PIC
SC-1 7P :BTOB-S
TO A BOARD A-31
C415 0.1 :PT
Q401 2SC2785 VIDEO-BUFF
R404 180
R405 1k
OUT

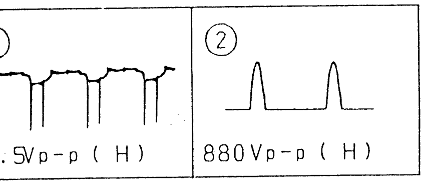

TO D BOARD D-3
TO XG BOARD XG-1
TO D BOARD D-12
XB-2 4P WHT :S-MICRO
HB.RET VB.IN VB.RET HB.IN
XB-3 XB-1
B. H/V VM OUT
XB
V.SUB (B) H.SUB (B) VM (B)

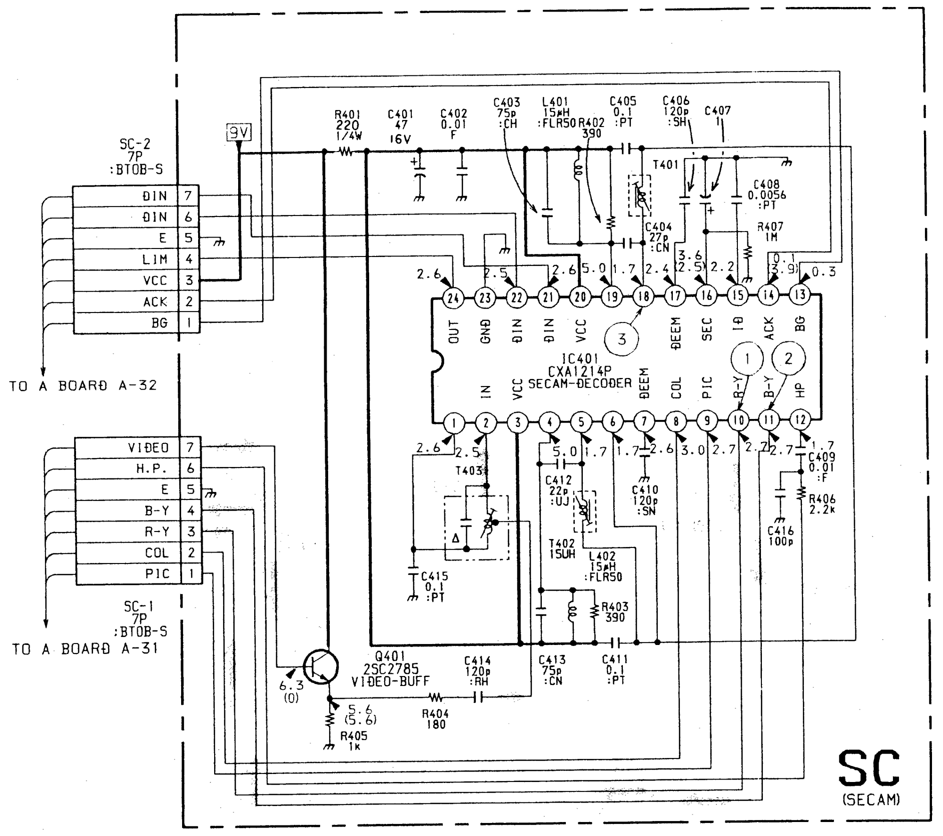

TO A BOARD A-15
TO D BOARD D-16
YB-1 4P WHT :MINI
H (B) + H (B) - DET.H (B)
YB-2 3P BLK :S-MICRO
V.RET (B) DET.V (B) V.IN (B)
C5 330p 2kV
C6 330p 2kV
R12 560
R9 2.2k 1/2W :RC
R10 2.2k 1/2W :RC
R11 560
YB (H/V DEF)
H.DY (B) V.DY (B)

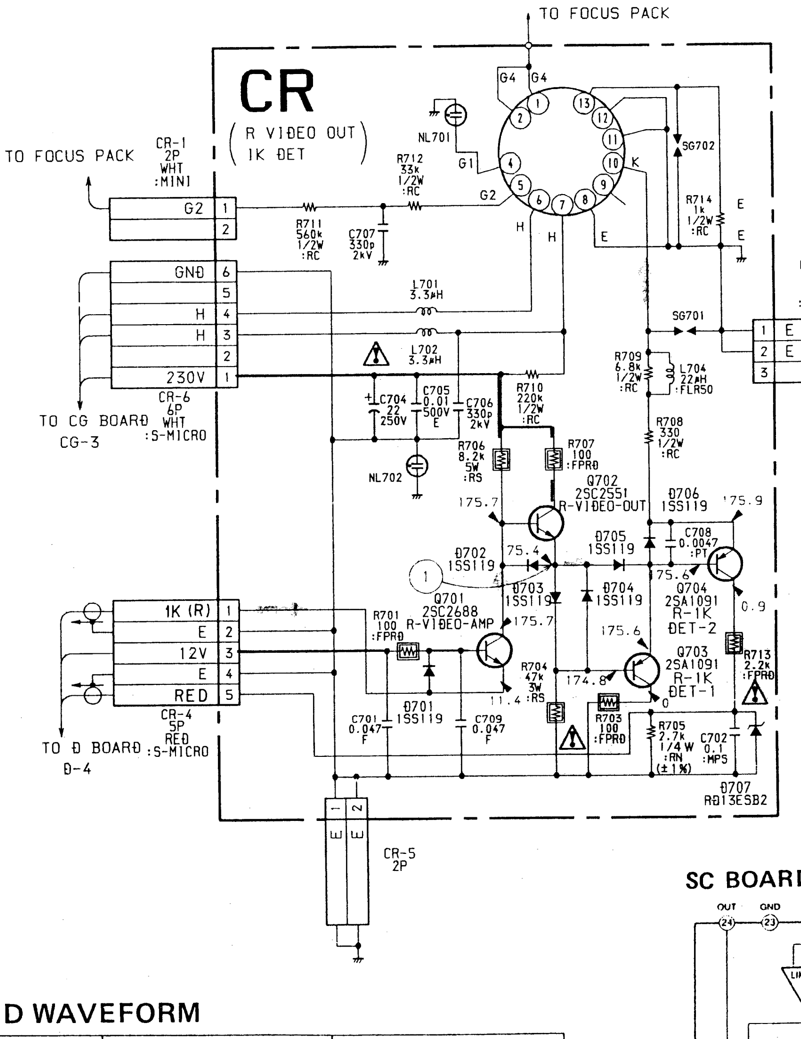

9
10
11
12
13
14
15
16
17
18
19
H.V BLOCK
HV → TO PICTURE TUBE (R)
HV → TO PICTURE TUBE (G)
HV → TO PICTURE TUBE (B)
<1> → TO PC BOARD
<2> → TO PC BOARD
:See Page 29— 31
P-4 4P RED :S-MICRO
E
HV RED
P-5 5P WHT :S-MICRO
HV PROT
IC802 (1/2) μPC393C Σ1KDET
IC803 μPC4082C HV REG DET
IC804 (1/2) μPC393C HV DET
IC804 (2/2) μPC393C HV DET
IC802 (2/2) μPC393C Σ1KDET
Q807 2SC2785 Σ1KPROTECT1
Q808 2SC2785 Σ1KPROTECT2
Q507 2SC3675 G2 CONT
D805 1SS119
D815 RD13ESB2
D874 RD33ESB2
SOFT START
115V
12V
P-6 2P WHT :MINI
GND
GND
DF
G2
P (HV REG, HV DRIVE, HV HOLD DOWN, G2 RECT, DYNAMIC FOCUS)
FOCUS BLOCK
FOCUS → TO CR BOARD
TO CG BOARD
TO CB BOARD
G2 → TO CR BOARD CR-1
TO CG BOARD CG-1
TO CB BOARD CB-1
TO HV.BLOCK
TO HV.BLOCK


L1 1.05mH
FBT1
FBT2
L801 90μH
L802 1.05mH
C801 560 200V
Q1 2SD1887 HV-CONV
128.5
C1 0.022 1.6kV :MPP
D2 ERC06-15S DAMP2
D1 ERC06-15S DAMP1
C2 1.5 400V :MPP
NL1
R1 47
PC (H, V DRIVE OUT)
E
115V
+115V
CONV
REG OUT
ABL

BOARD WAVEFORM

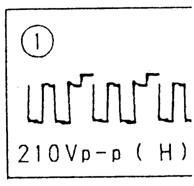



SC-2 7P :BTOB-S
DIN
DIN
E
LIM
VCC
ACK
BG
TO A BOARD A-32
VIDEO
H.P.
E
B-Y
R-Y
COL
PIC
SC-1 7P :BTOB-S
TO A BOARD A-31
9V
IC401 CXA1214P SECAM-DECODER
T401
T402 15μH
T403
Q401 2SC2785 VIDEO-BUFF
SC (SECAM)

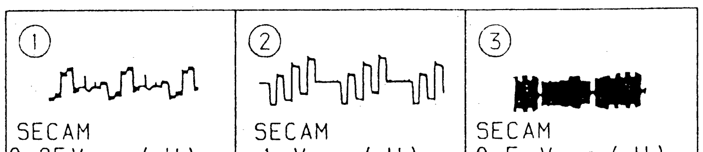

TO FOCUS PACK
CR (R VIDEO OUT / 1K DET)
TO FOCUS PACK
CR-1 2P WHT :MINI
G2
GND
H
H
230V
CR-6 6P WHT :S-MICRO
TO CG BOARD CG-3
NL701
NL702
Q702 2SC2551 R-VIDEO-OUT
Q701 2SC2688 R-VIDEO-AMP
Q704 2SA1091 R-1K DET-2
Q703 2SA1091 R-1K DET-1
D707 RD13ESB2
1K (R)
E
12V
E
RED
CR-4 5P RED :S-MICRO
TO D BOARD D-4
CR-5 2P
CR-2 3P WHT :MINI

Should only

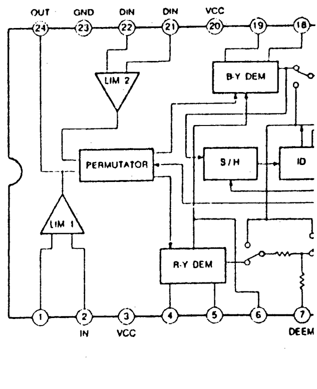
CR BOARD W

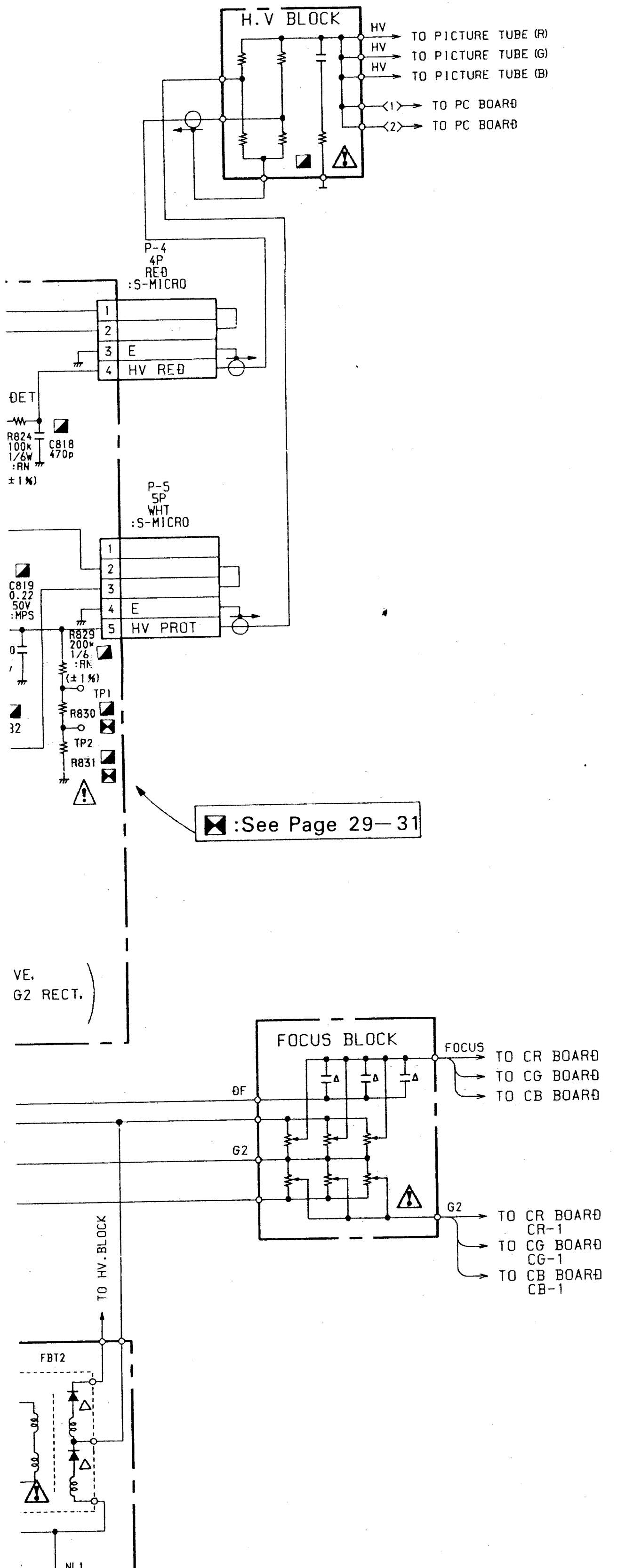


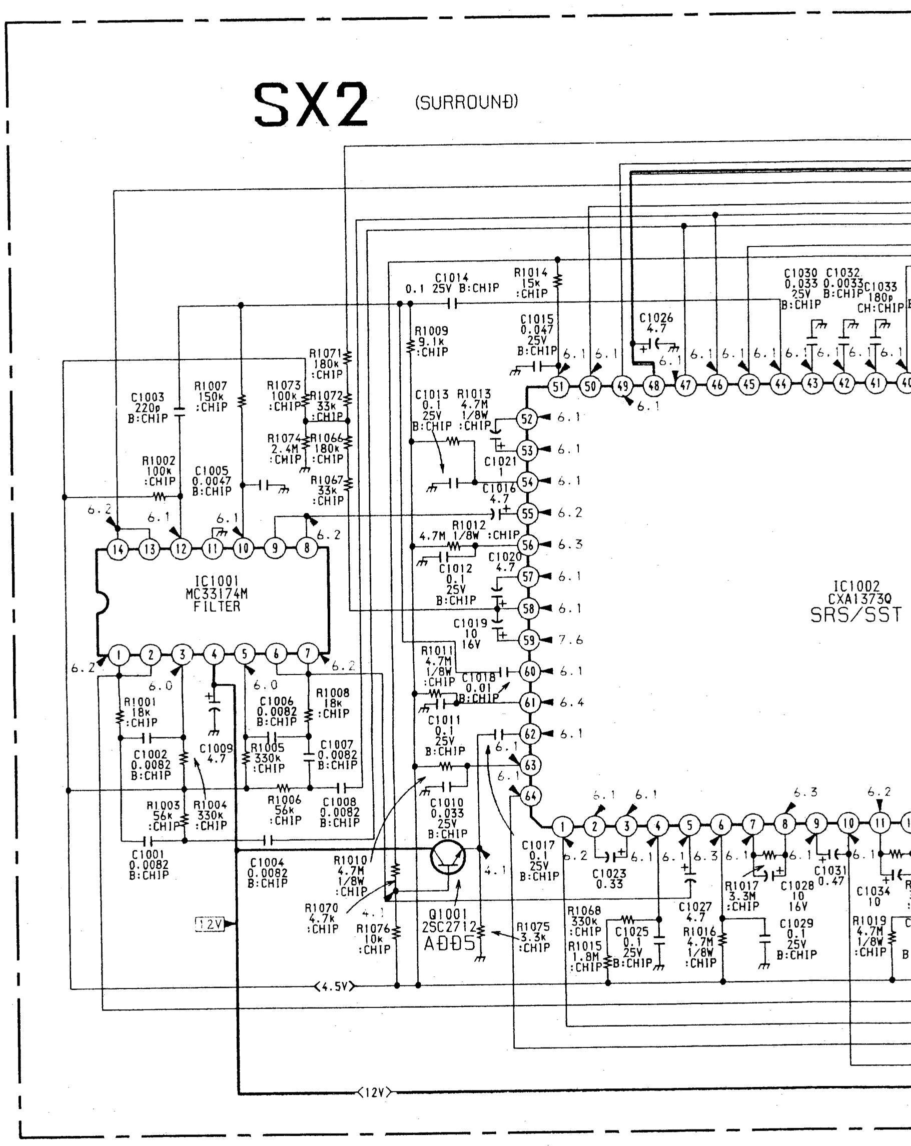
SC BOARD WAVEFORM



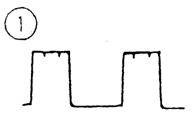
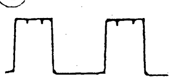
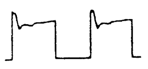
SC BOARD IC401 CXA1214

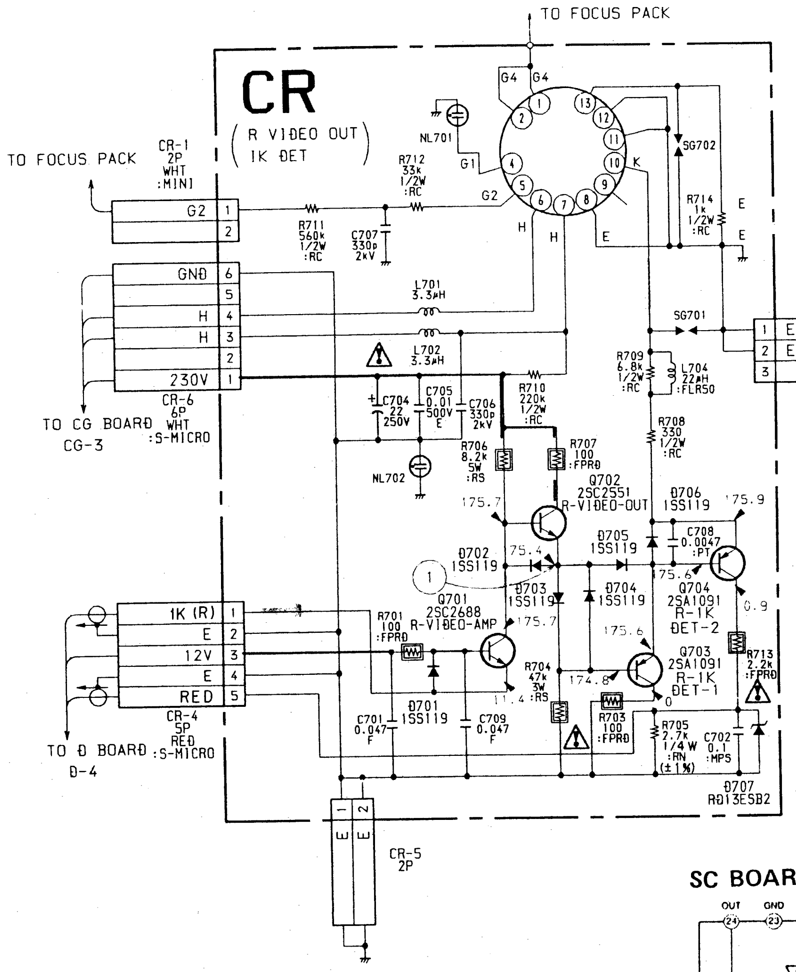

OUT
GND
DIN
DIN
VCC
LIM 2
B-Y DEM
PERMUTATOR
S/H
LIM 1
R-Y DEM
IN
VCC
DEEM

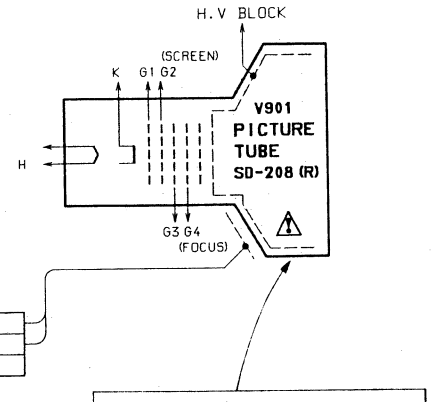

H.V BLOCK
TO PICTURE TUBE (R)
TO PICTURE TUBE (G)
TO PICTURE TUBE (B)
TO PC BOARD
TO PC BOARD
P-4 4P RED :S-MICRO
HV RED
P-5 5P WHT :S-MICRO
HV PROT
:See Page 29－31
G2 RECT.
FOCUS BLOCK
FOCUS
TO CR BOARD
TO CG BOARD
TO CB BOARD
TO CR BOARD CR-1
TO CG BOARD CG-1
TO CB BOARD CB-1
TO HV.BLOCK
FBT2
NL1
DRIVE OUT)


SX2 (SURROUND)
IC1001 MC33174M FILTER
IC1002 CXA1373Q SRS/SST
Q1001 2SC2712 ADD5
(12V)
(4.5V)

P BOARD WAVEFORM

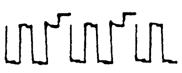
①  4.8Vp-p (H)	②  4.8Vp-p (H)	③  130 Vp-p (H)

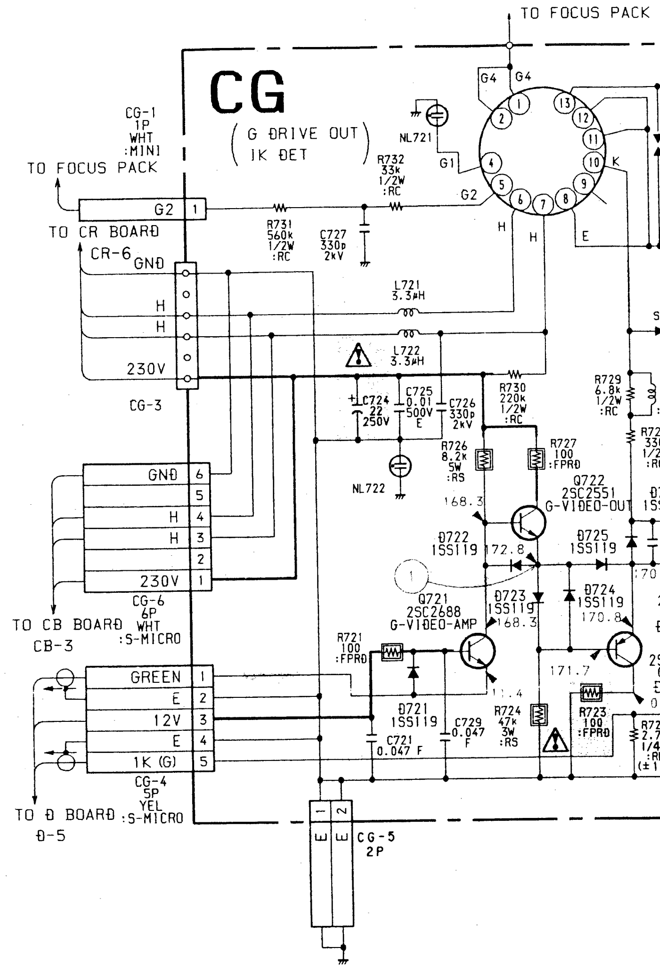

CR
(R VIDEO OUT)
(1K DET)
TO FOCUS PACK
CR-1 2P WHT :MINI
CR-6 6P WHT :S-MICRO
TO CG BOARD CG-3
CR-2 3P WHT :MINI
CR-4 5P RED :S-MICRO
TO D BOARD D-4
CR-5 2P
Q701 2SC2688 R-VIDEO-AMP
Q702 2SC2551 R-VIDEO-OUT
Q703 2SA1091 R-1K DET-1
Q704 2SA1091 R-1K DET-2
D707 RD13ESB2


H.V BLOCK
(SCREEN)
V901 PICTURE TUBE SD-208 (R)
G3 G4 (FOCUS)

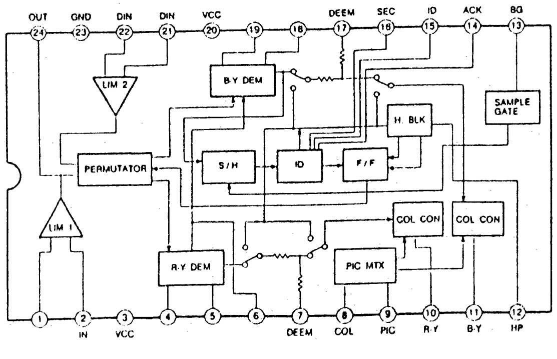
CAUTION
Should replacement be required, replace only with the value originally used.

CR BOARD WAVEFORM

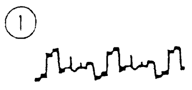
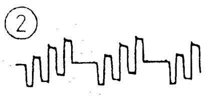
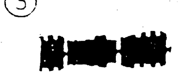
①  210Vp-p (H)

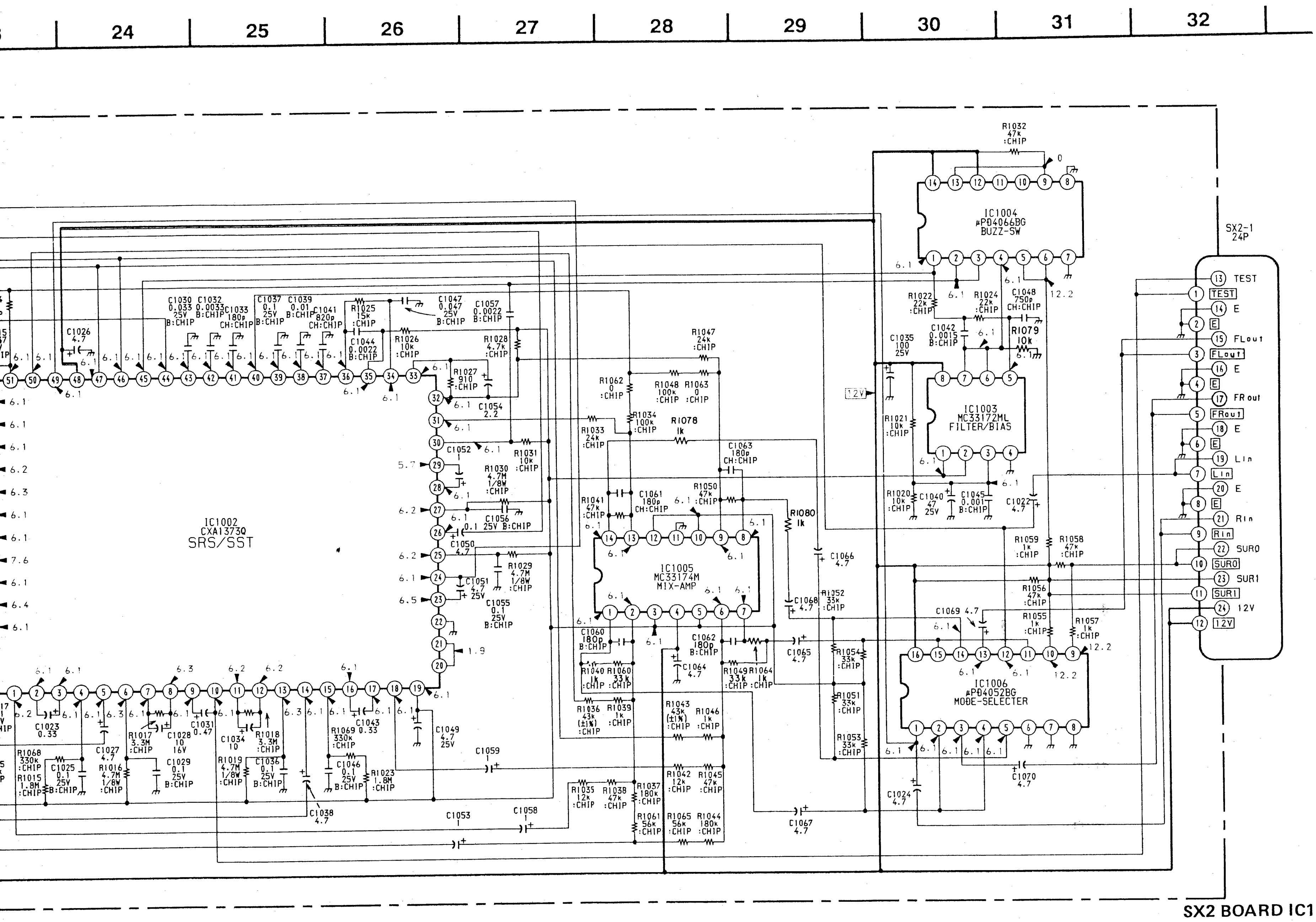

TO FOCUS PACK
CG
(G DRIVE OUT)
(1K DET)
CG-1 1P WHT :MINI
TO CR BOARD CR-6
CG-3
CG-6 6P WHT :S-MICRO
TO CB BOARD CB-3
CG-4 5P YEL :S-MICRO
TO D BOARD D-5
CG-5 2P
Q721 2SC2688 G-VIDEO-AMP
Q722 2SC2551 G-VIDEO-OUT

SC BOARD IC401 CXA1214P

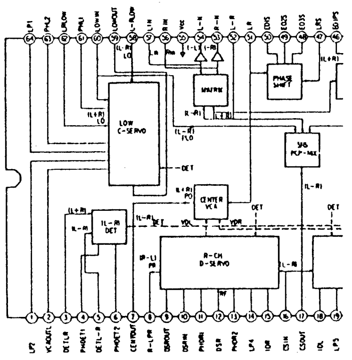

OUT GND DIN DIN VCC DEEM SEC ID ACK BG
LIM 2
B-Y DEM
SAMPLE GATE
H BLK
PERMUTATOR
S/H
ID
F/F
LIM 1
COL CON
COL CON
R-Y DEM
PIC MTX
IN VCC DEEM COL PIC R-Y B-Y HP

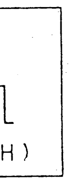
SC BOARD WAVEFORM

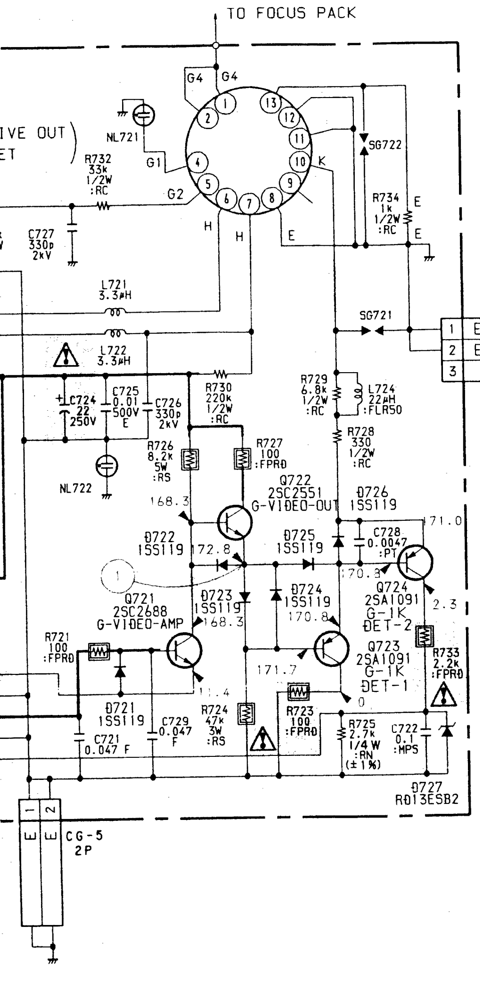
①  SECAM 0.85Vp-p (H)	②  SECAM 1 Vp-p (H)	③  SECAM 0.5 Vp-p (H)

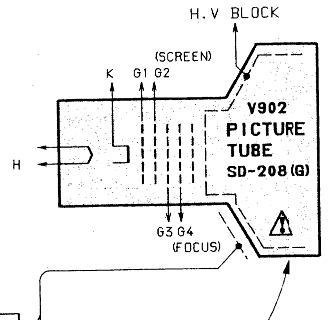

24
25
26
27
28
29
30
31
32
IC1002
CXA1373Q
SRS/SST
IC1003
MC33172ML
FILTER/BIAS
IC1004
μPD4066BG
BUZZ-SW
IC1005
MC33174M
MIX-AMP
IC1006
μPD4052BG
MODE-SELECTER
SX2-1
24P
TEST
E
FLout
FRout
Lin
Rin
SURO
SUR1
12V

SX2 BOARD IC1002 CXA1373



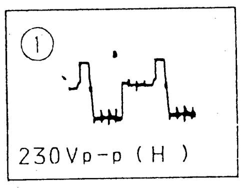


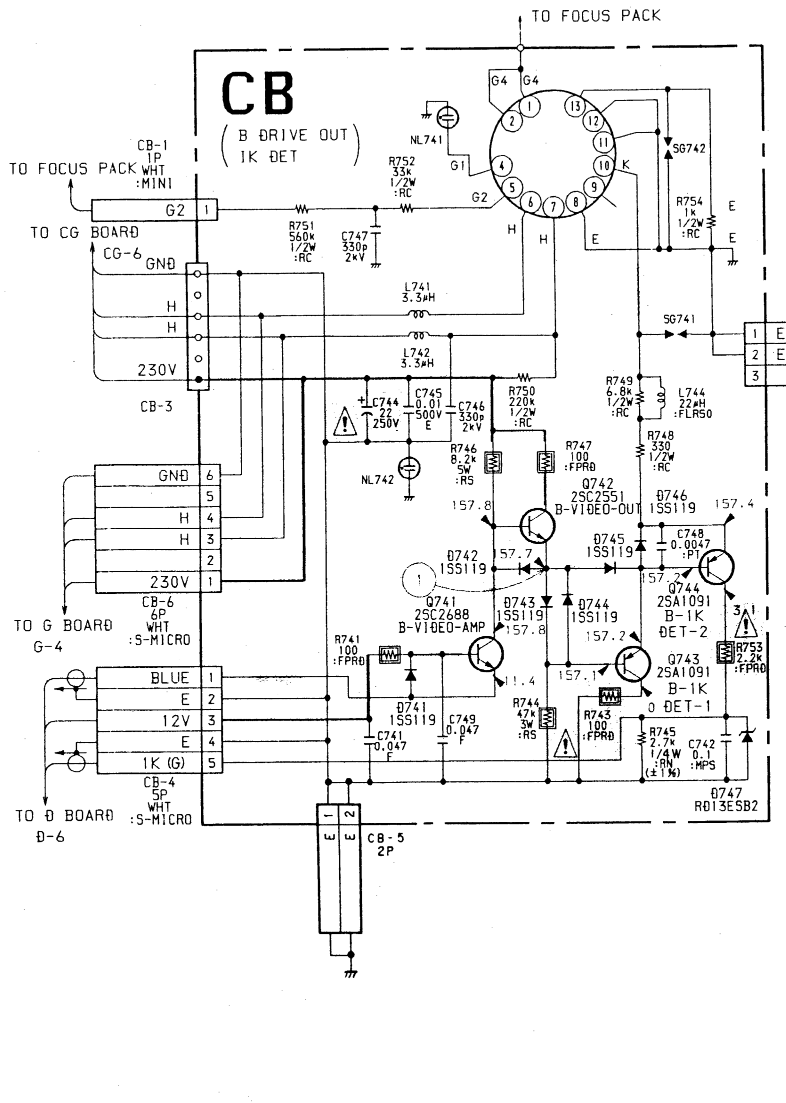

TO FOCUS PACK
IVE OUT
ET
NL721
SG722
Q722
2SC2551
G-VIDEO-OUT
Q721
2SC2688
G-VIDEO-AMP
Q724
2SA1091
G-1K
DET-2
Q723
2SA1091
G-1K
DET-1
Q727
RD13ESB2
CG-2
3P
WHT
:MINI
CG-5
2P

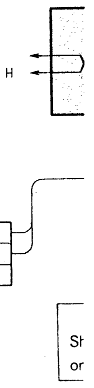

H.V BLOCK
(SCREEN)
K G1 G2
V902
PICTURE
TUBE
SD-208(G)
G3 G4
(FOCUS)
H

CAUTION
Should replacement be required, replace only with the value originally used.

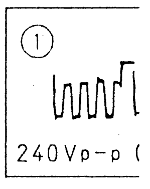
CG BOARD WAVEFORM




TO FOCUS PACK
CB
(B DRIVE OUT
1K DET)
CB-1
1P
WHT
:MINI
TO FOCUS PACK
G2
TO CG BOARD
CG-6
GND
H
H
230V
CB-3
GND
H
H
230V
CB-6
6P
WHT
:S-MICRO
TO G BOARD
G-4
BLUE
E
12V
E
1K (G)
CB-4
5P
WHT
:S-MICRO
TO D BOARD
D-6
NL741
NL742
SG742
SG741
Q742
2SC2551
B-VIDEO-OUT
Q741
2SC2688
B-VIDEO-AMP
Q744
2SA1091
B-1K
DET-2
Q743
2SA1091
B-1K
DET-1
Q747
RD13ESB2
CB-2
3P
WHT
:MINI
CB-5
2P

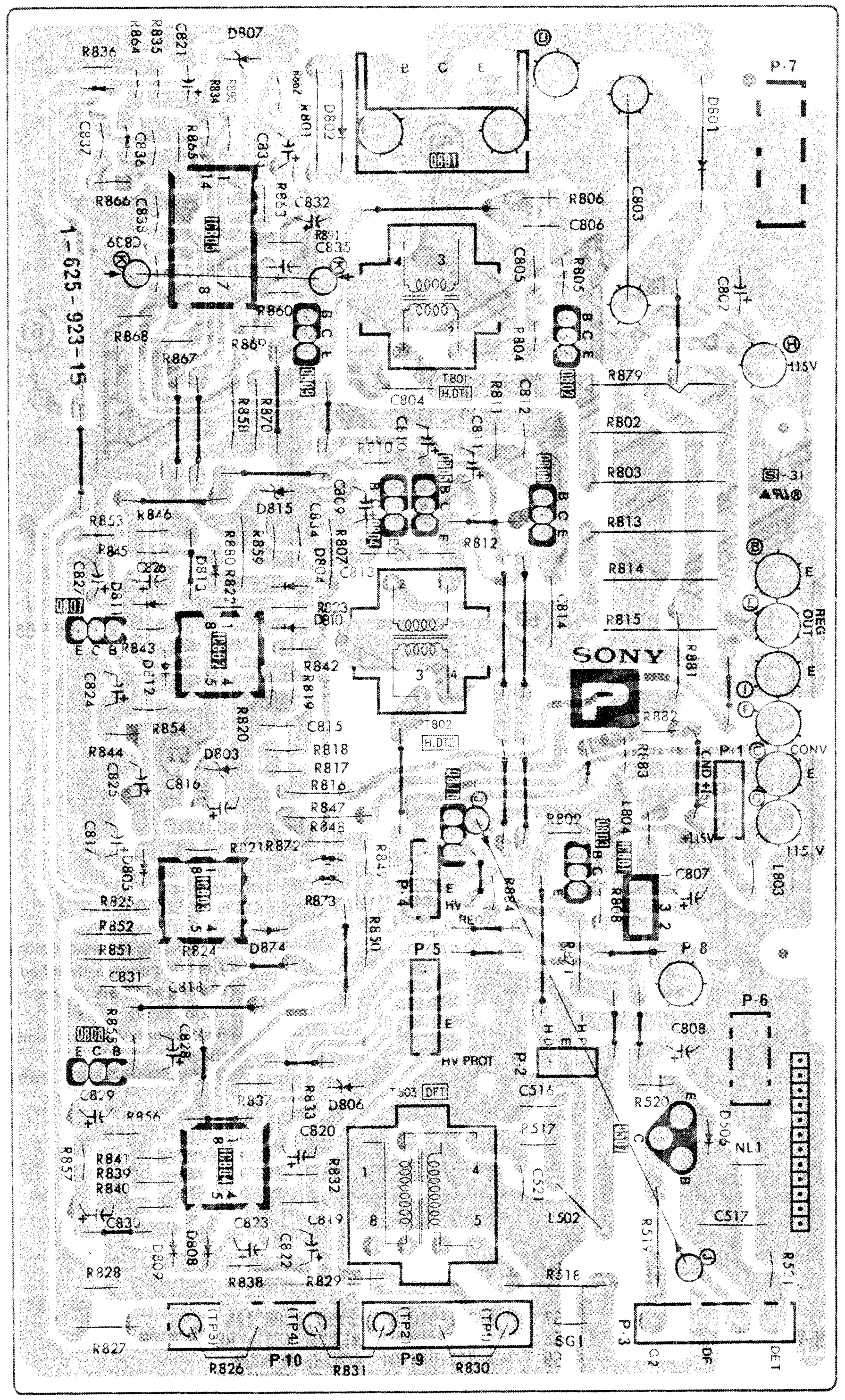


CB BOARD



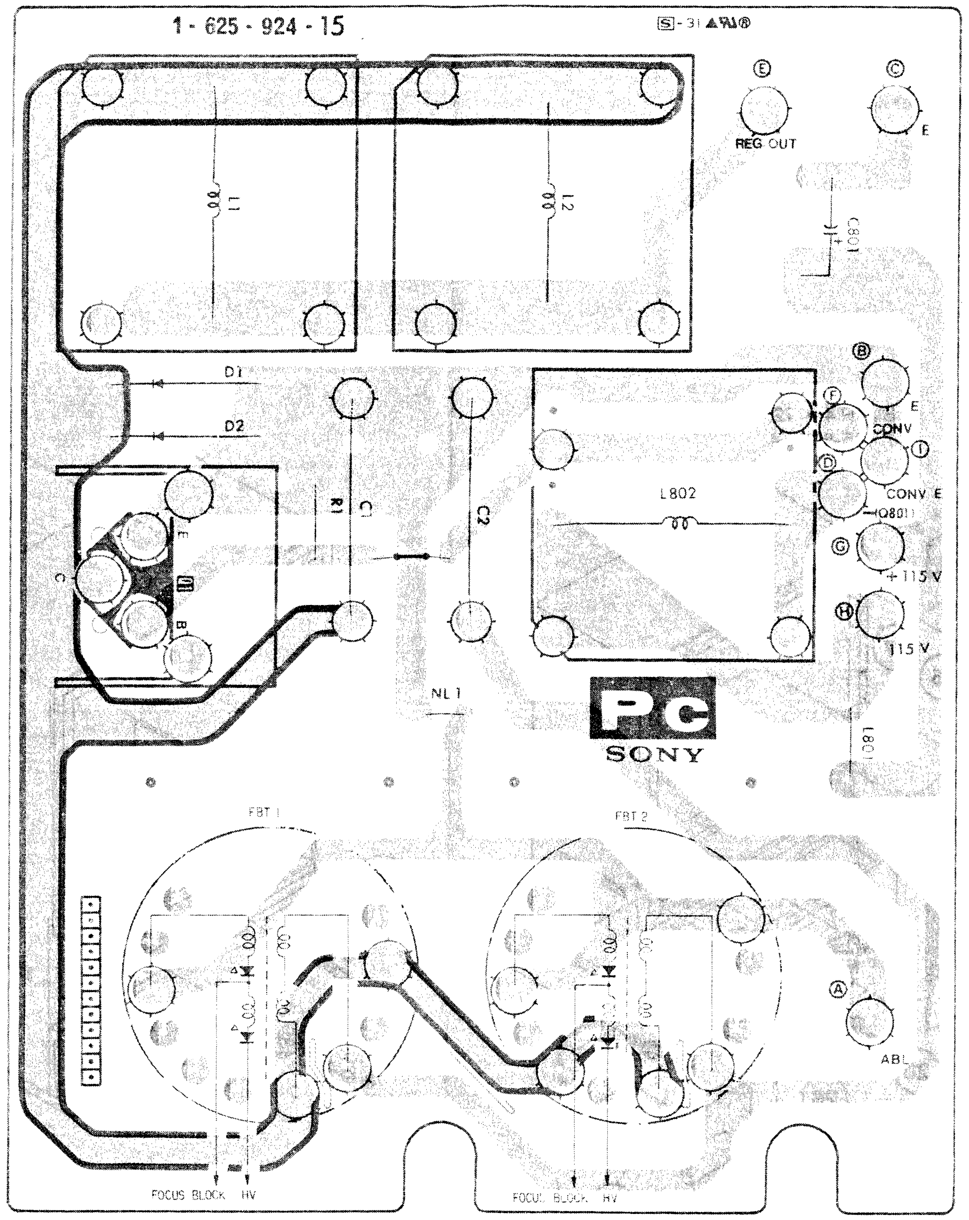
P [H/V REG, H/V DRIVE, H/V HOLD DOWN, G2 RECT, DYNAMIC FOCUS]

— P Board —


1-625-923-15
SONY
P
REG OUT
CONV
115V
HV PROT
P-1
P-2
P-3
P-4
P-5
P-6
P-7
P-8
P-9
P-10
SG1
DF
DET

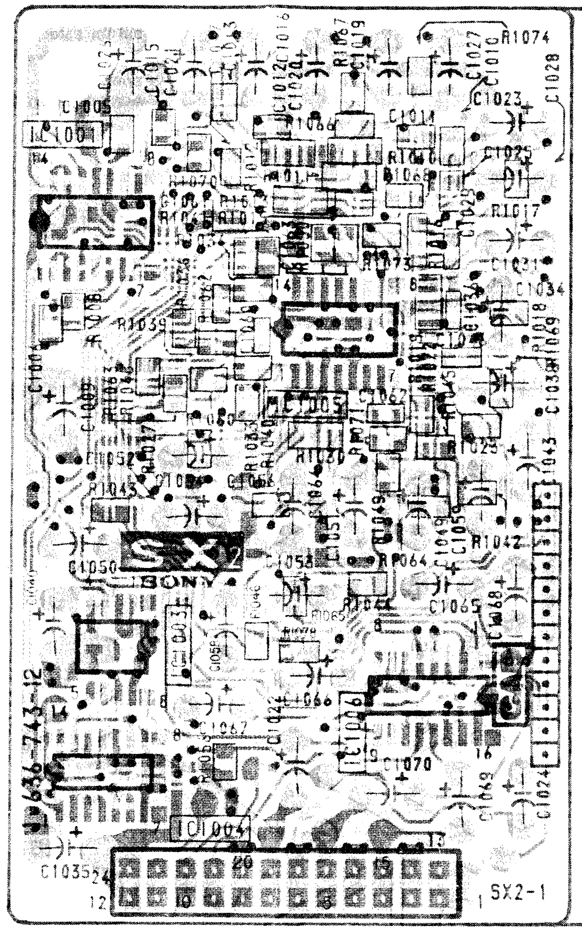
PC [HV CONV, FBT]

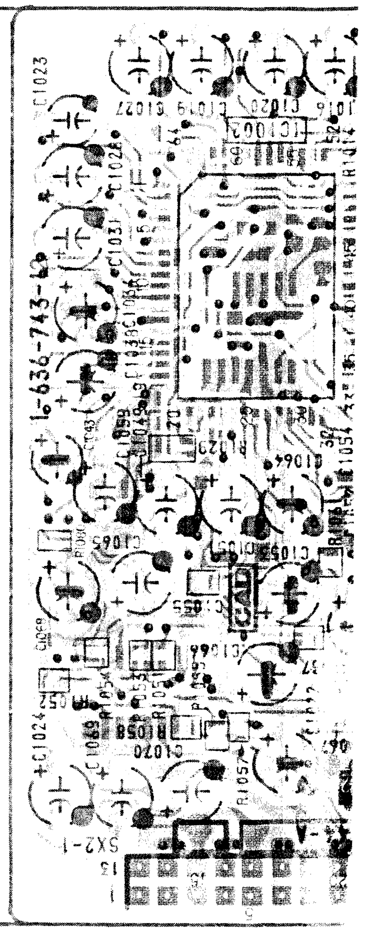
— PC Board —


1-625-924-15
REG OUT
L1
L2
D1
D2
L802
CONV
+115V
115V
NL1
Pc
SONY
FBT 1
FBT 2
ABL
FOCUS BLOCK HV
FOCUS BLOCK HV

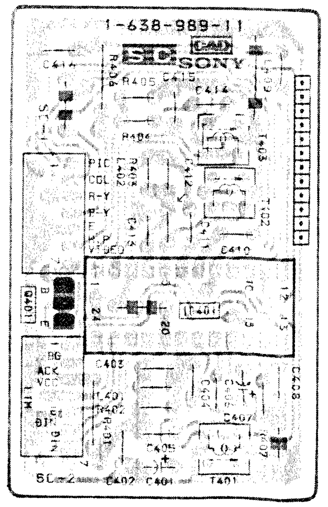
SX2 [SORROUND] SC [SECAM] CR [R. VIDE IK DET

— SX2 Board —


1-636-743-12
SX2
SONY
SX2-1

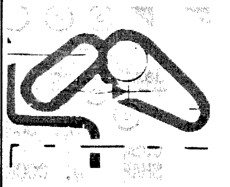

1-636-743-12
SX2-1

— SC Board —


1-638-989-11
SC
SONY

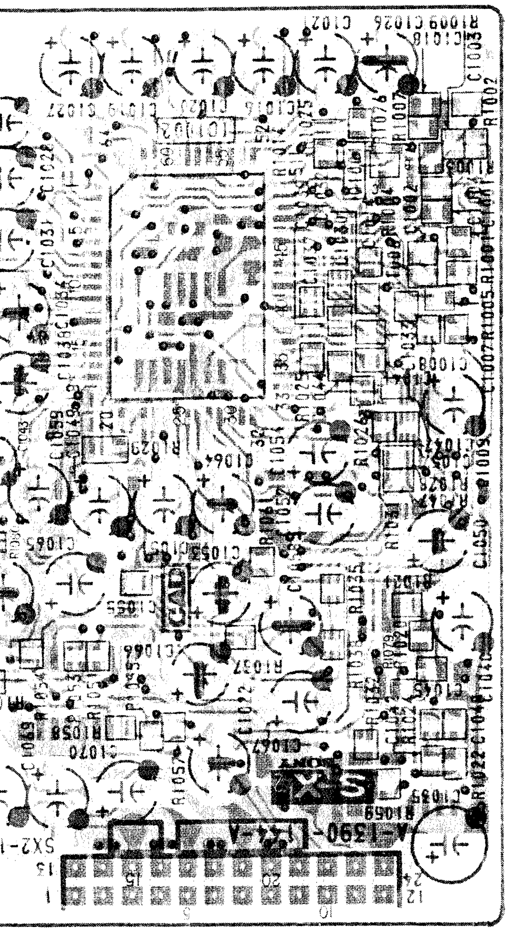
• : Pattern from the s

• : Pattern of the rea



NOTE:
The circuit indicated as left
600 Vp-p. Care must be paid
inspection or repairing.

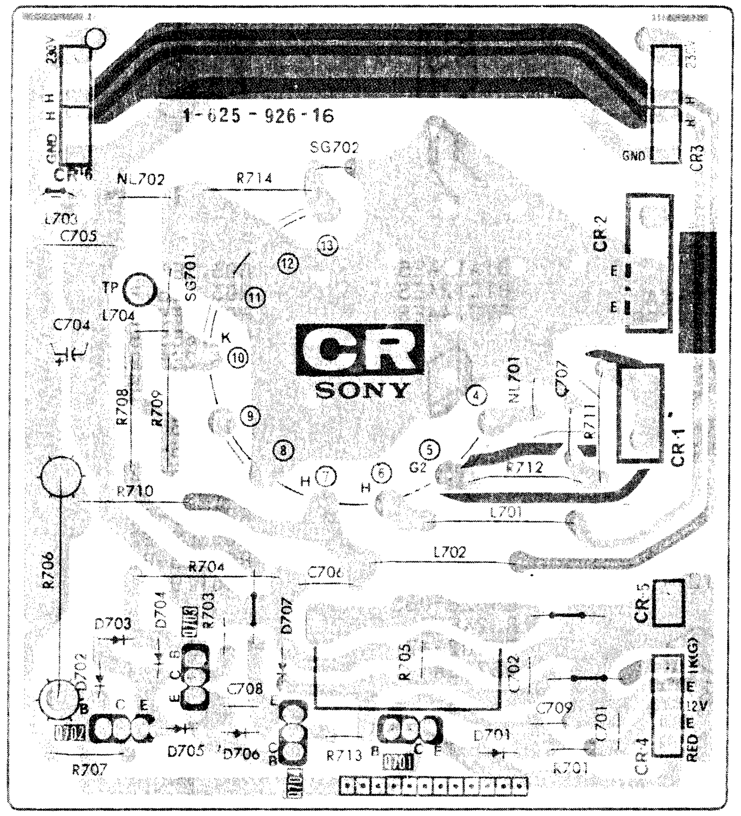
CR [R. VIDEO OUT, IK DET] **YR** [R. H/V DEF] **XR** [R. H/V SUB, VM] **CG** [G. VIDEO OUT, IK DET] **YG** [G. H/V DEF] **XG** [G. H/V SUB, VM] **CB** [B. VIDEO OUT, IK DET] **YB** [B. H/V DEF] **XB** [B. H/V SUB, VM]


X-S
1-590
SX2-1

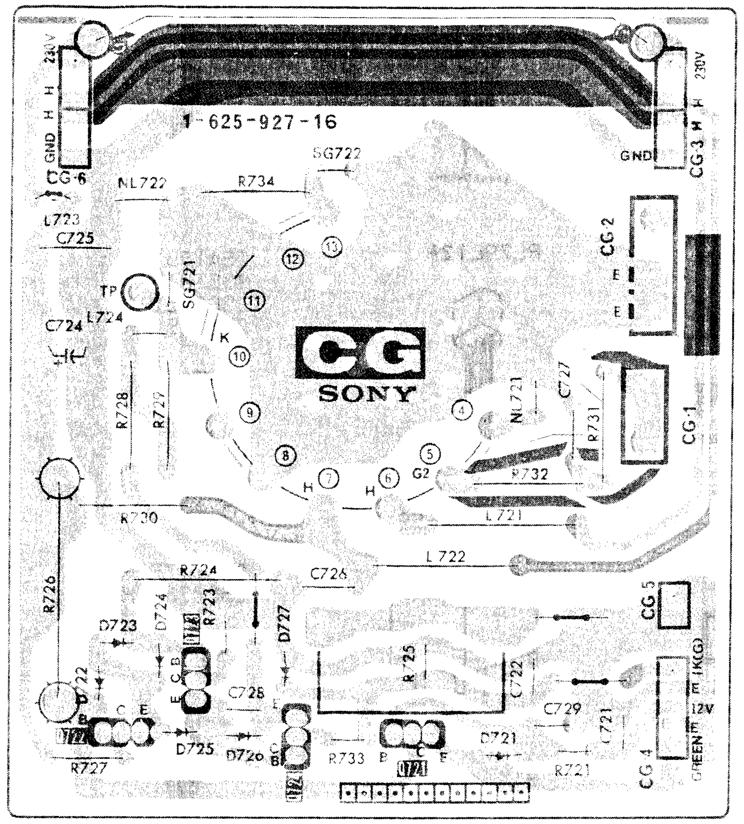
▢ : Pattern from the side which enables seeing.
▨ : Pattern of the rear side.

OTE:
he circuit indicated as left contains high voltage of over 00 Vp-p. Care must be paid to prevent an electric shock in nspection or repairing.

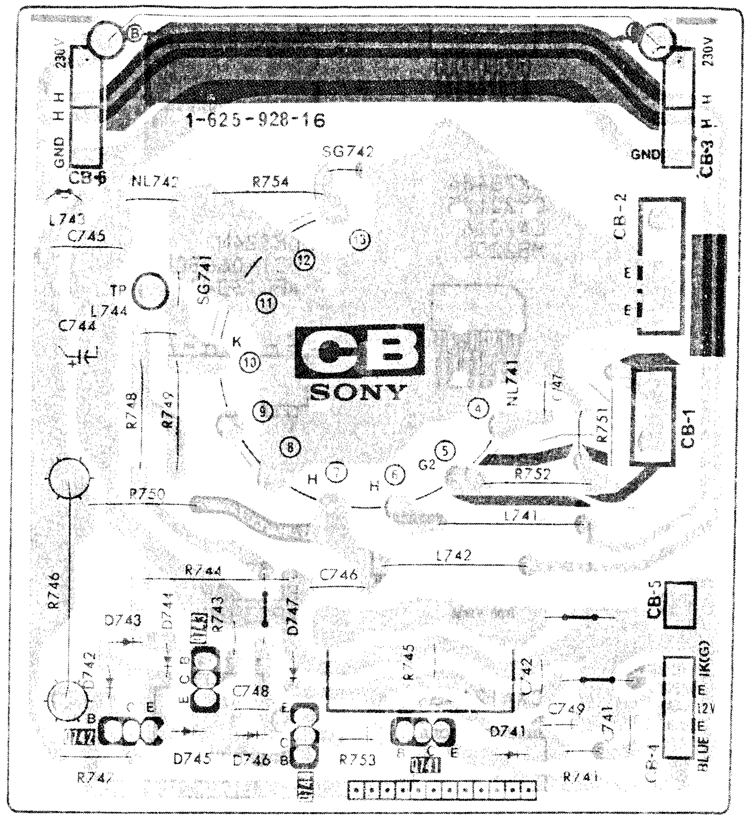
– CR Board –


1-625-926-16
CR
SONY
CR-6
CR-1
CR-2
CR3
CR-4
CR-5
GND
230V
SG702
SG701
NL702
NL701
R714
L703
C705
TP
C704
L704
R708
R709
R710
R706
R704
C706
L702
L701
R712
R711
C707
D703
D704
R703
D707
D702
D705
D706
C708
R705
C702
C709
C701
R713
L701
R701
R707
RED
IK(G)
12V

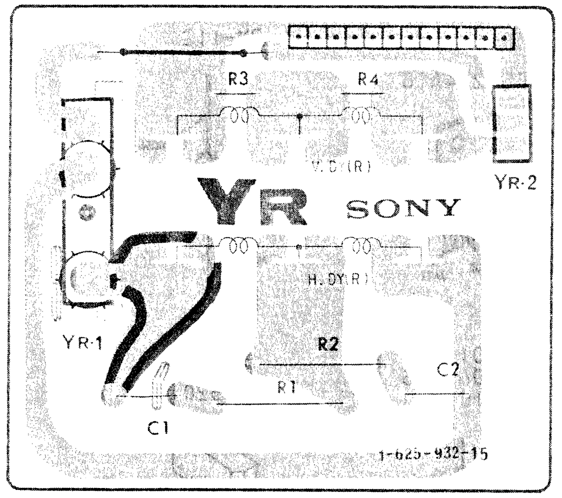
– CG Board –


1-625-927-16
CG
SONY
CG-6
CG-1
CG-2
CG 3
CG-4
CG5
GND
230V
SG722
SG721
NL722
NL721
R734
L723
C725
TP
C724
L724
R728
R729
R730
R726
R724
C726
L722
L721
R732
R731
C727
D723
D724
R723
D727
D722
D725
D726
C728
R725
C722
C729
C721
R733
D721
R721
R727
GREEN
IK(G)
12V

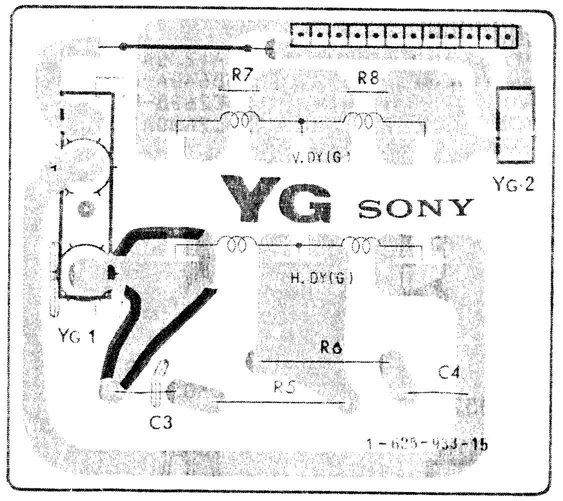
– CB Board –


1-625-928-16
CB
SONY
CB-6
CB-1
CB-2
CB-3
CB-4
CB-5
GND
230V
SG742
SG741
NL742
NL741
R754
L743
C745
TP
C744
L744
R748
R749
R750
R746
R744
C746
L742
L741
R752
R751
C747
D743
D744
R743
D747
D742
D745
D746
C748
R745
C742
C749
C741
R753
D741
R741
R747
BLUE
IK(G)
12V

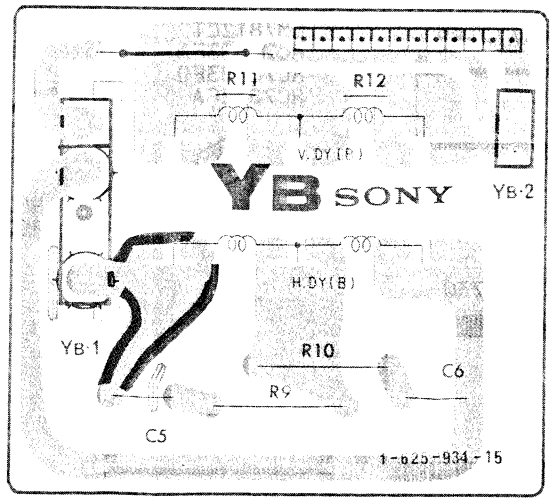
– YR Board –


YR
SONY
R3
R4
V. DY(R)
H. DY(R)
YR-1
YR-2
R2
R1
C1
C2
1-625-932-15

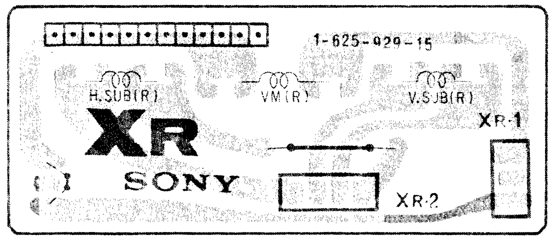
– YG Board –


YG
SONY
R7
R8
V. DY(G)
H. DY(G)
YG 1
YG-2
R6
R5
C3
C4
1-625-933-15

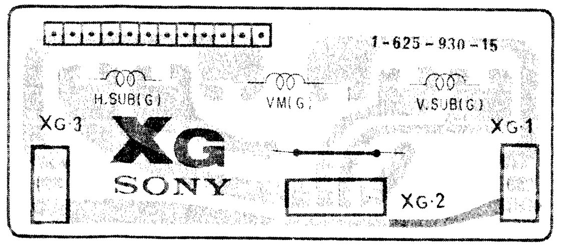
– YB Board –


YB
SONY
R11
R12
V. DY(B)
H. DY(B)
YB-1
YB-2
R10
R9
C5
C6
1-625-934-15

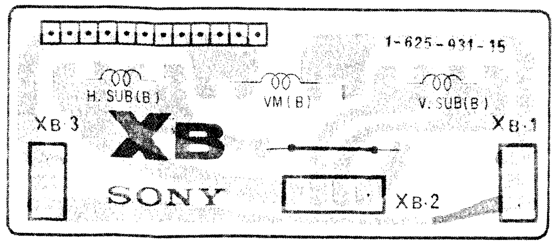
– XR Board –


1-625-929-15
H.SUB(R)
VM(R)
V.SUB(R)
XR
SONY
XR-1
XR-2

– XG Board –

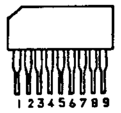

1-625-930-15
H.SUB(G)
VM(G)
V.SUB(G)
XG
SONY
XG-3
XG-1
XG-2

– XB Board –

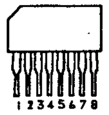

1-625-931-15
H.SUB(B)
VM(B)
V.SUB(B)
XB
SONY
XB 3
XB-1
XB-2

6-4. SEMICONDUCTORS

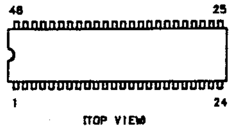
CX825



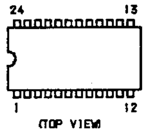
CX7948A
CX20125
LA7016
M5220L



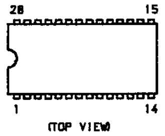
CXA1024S
CXA1213S


48
25
1
24
(TOP VIEW)

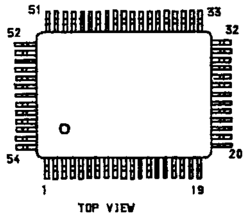
CXA1214S


24
13
1
12
(TOP VIEW)

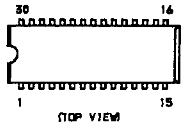
CXA1268P


28
15
1
14
(TOP VIEW)

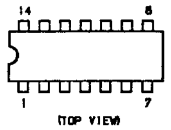
CXA1373Q


51
33
52
32
54
20
1
19
TOP VIEW

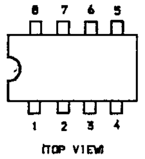
LA7953
M50461-064SP


30
16
1
15
(TOP VIEW)

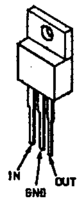
LM324N
MC14066BCP
μPC1394C


14
8
1
7
(TOP VIEW)

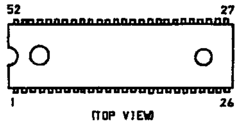
LM393P
RC4558P
μPC393P


8 7 6 5
1 2 3 4
(TOP VIEW)

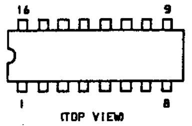
LM7812CT
RC78M93FA
RC78M93FD
RC7812FA



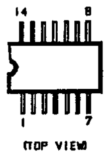
MB88E734-139


52
27
1
26
(TOP VIEW)

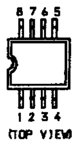
MC14052BCP
μPC6326C


16
9
1
8
(TOP VIEW)

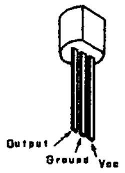
MC14066BF
MC33174M


14
8
1
7
(TOP VIEW)

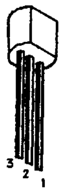
MC3317ML


8 7 6 5
1 2 3 4
(TOP VIEW)

NJM78L05A


Output
Ground
Vcc

RC78L05A
RC78L12A



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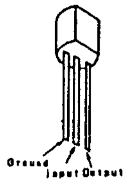
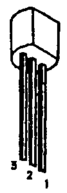
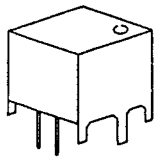

Ground
Input
Output

RC79L12A



SBX1483-59



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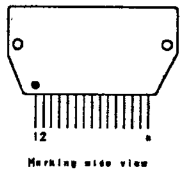
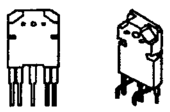
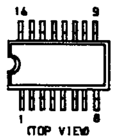

12
Marking side view

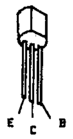
STR80145A



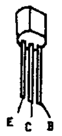
μPD4052BG


16
9
1
8
(TOP VIEW)

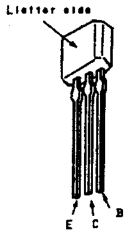
2SA1013-O
2SC2383-O
2SD788-S



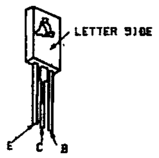
2SA1091-O
2SC1815-Y
2SC2551-O
2SC2551-RO



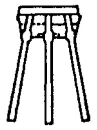
2SA1175-HFE
2SC2785-HFE


Letter side
E
C
B

2SA1220A-P
2SB649A-C
2SC2688-LK
2SC2690A


LETTER SIDE
E
C
B

2SA1237-F
2SC3064-F



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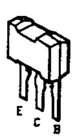
2SC3668-O



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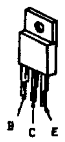
2SB1094-L
2SC3468-E
2SC3675
2SD1399-CA
2SD1406-YGR



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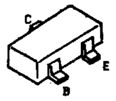
2SC2712-YG



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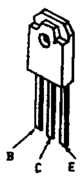

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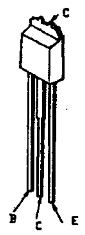

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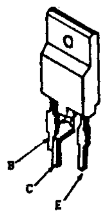

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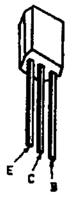
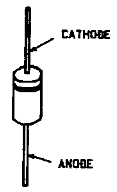
DTC124ES
DTC144ES



10E-2
ERD28-08S
RD24FB2
RGP02-17
WG713A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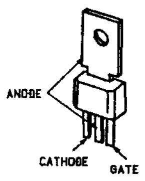
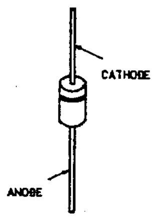
ANODE

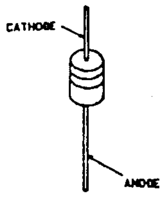
CSM2B4A10


ANODE
CATHODE
GATE

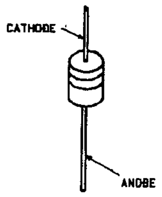
EQB01-24
ERC06-15S
RU-1C


CATHODE
ANODE

ERC38-06


CATHODE
ANODE

RD3.3ES-B2
RD3.6ES-B1
RD5.1ES-B2
RD5.6ES-B1
RD6.2ES-B2
RD9.1ES-B1
RD10ES-B2
RD12ES-B1
RD13ES-B1
RD13ES-B2
RD15ES-B1
RD33ES-B2
RD36ES-B2
RD39ES-B2
1SS119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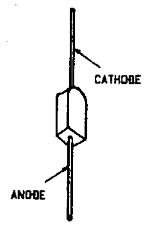
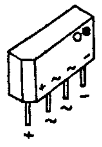
ANODE

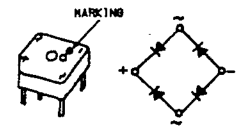
RM-11C


CATHODE
ANODE

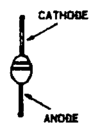
S1VB20



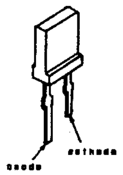
S3WB60Z



U05G


CATHODE
ANODE

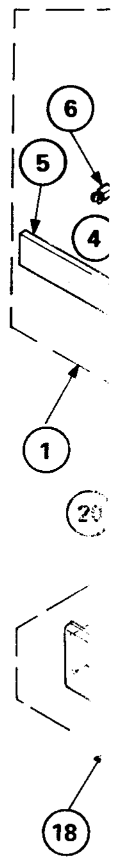
SLP162B


anode
cathode

NO

7-1.

● : B
■ : B
□ : B



Ref. No.	Part
1	X-402
2	4-314-
3	3-662-
4	4-031-
5	4-397-
6	4-392-
7	3-720-
8	4-397-
9	3-831-
10	4-030-
11	4-397-
12	4-026-
13	*1-638-
14	4-381-
15	*A-1371

SECTION 7

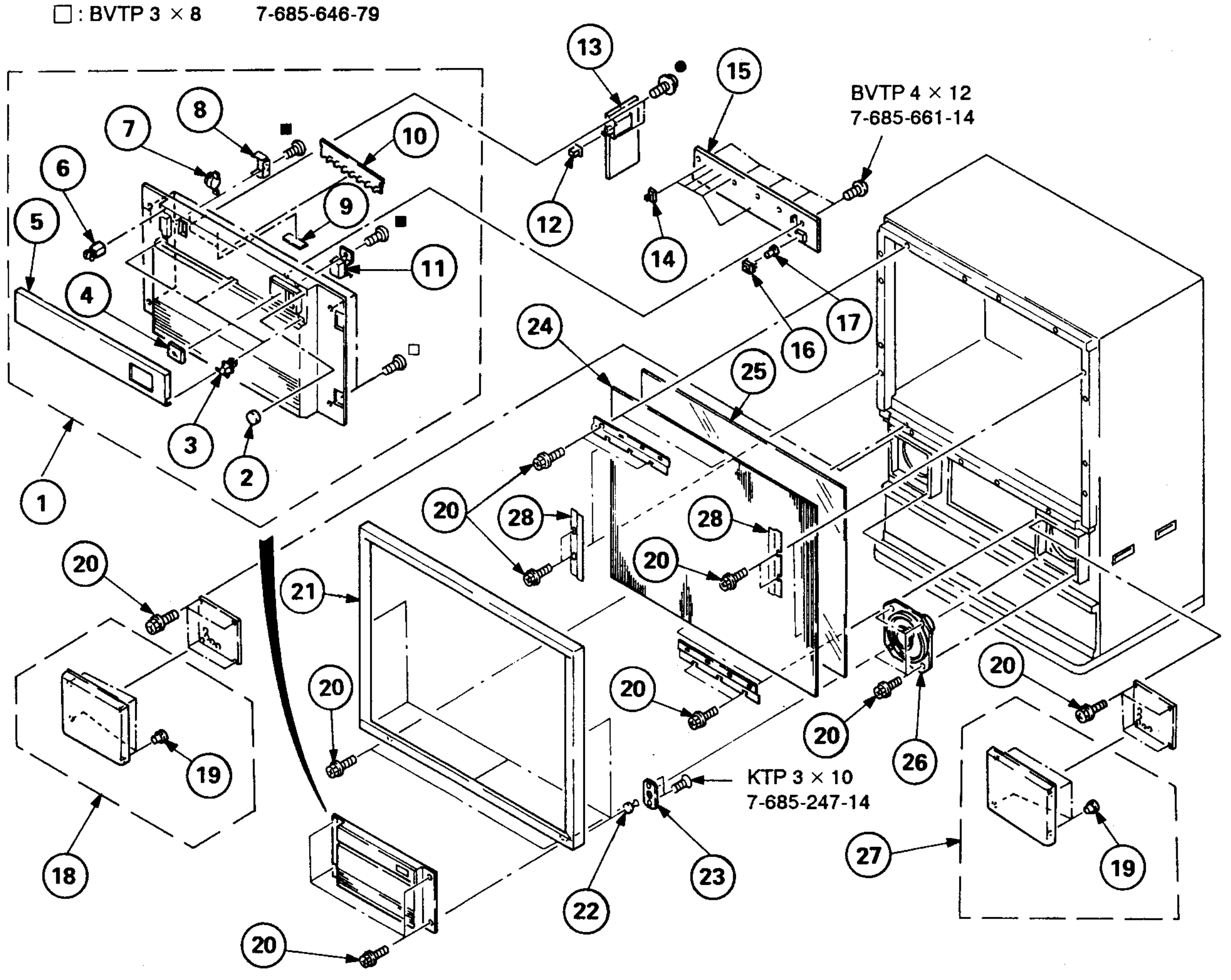
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

7-1. : CONTROL PANEL

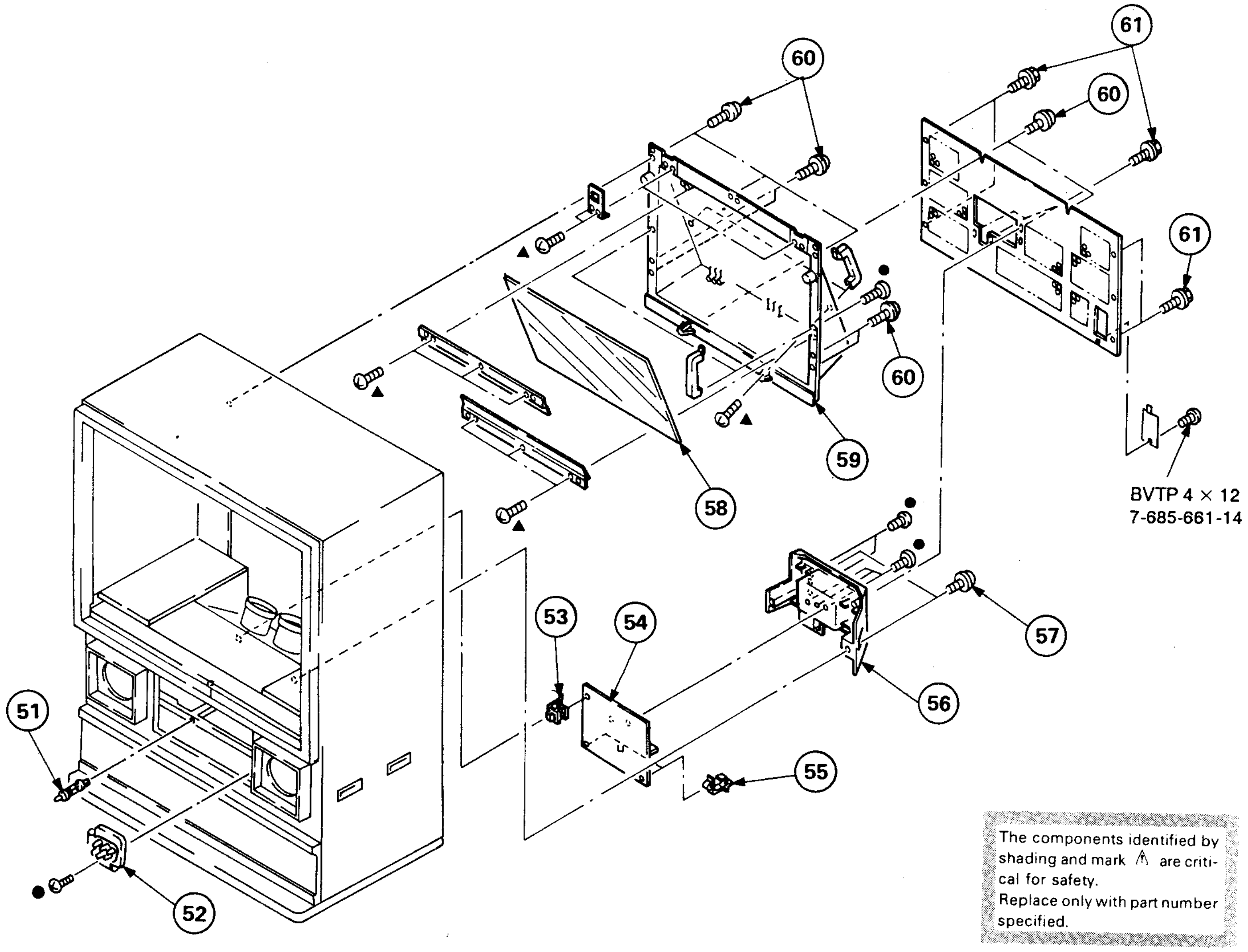
● : BVTP 3 × 12 7-685-648-79
■ : BVP 2.6 × 10 7-685-135-19
□ : BVTP 3 × 8 7-685-646-79



Ref. No.	Part No.	Description	Remark
1	X-4029-674-1	PANEL ASSY, CONTROL	2-11
2	4-314-871-00	CUSHION	
3	3-662-365-00	SHAFT (S), DOOR	
4	4-031-985-01	COVER, INDICATOR	
5	4-397-071-11	DOOR, CONTROL	
6	4-392-036-01	CATCH, PUSH	
7	3-720-417-01	DAMPER, OIL	
8	4-397-047-01	HOLDER, DAMPER	
9	3-831-441-99	CUSHION, SPEAKER	
10	4-030-412-11	BUTTON, SUB CONTROL	
11	4-397-056-01	BUTTON, POWER	
12	4-026-619-00	BUTTON (P), PUSH	
13	*1-638-988-11	FB BOARD	
14	4-381-073-11	KEY TOP, SLIDE	
15	*A-1371-737-A	H BOARD COMPLETE	
16	*4-381-686-01	BRACKET (B), LIGHT GUIDE	
17	*4-374-987-01	GUIDE, LIGHT	
18	X-4029-675-1	GRILLE (L) ASSY, SPEAKER	19
19	4-849-034-00	CATCHER	
20	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
21	X-4029-668-1	FRAME ASSY, SCREEN	
22	4-838-452-00	STRIKE	
23	4-838-453-00	SUPPORT	
24	*4-031-483-01	PLATE (L), DIFFUSION	
25	4-030-948-01	PLATE (TFF), DIFFUSION	
26	1-544-529-11	SPEAKER	
27	X-4029-676-1	GRILLE (R) ASSY, SPEAKER	19
28	4-031-204-01	HOLDER (RIGHT, LEFT), SCREEN	

7-2. : MIRROR BLOCK

● : BVTP 3 × 12 7-685-661-79
▲ : BVTP M4 7-685-648-79

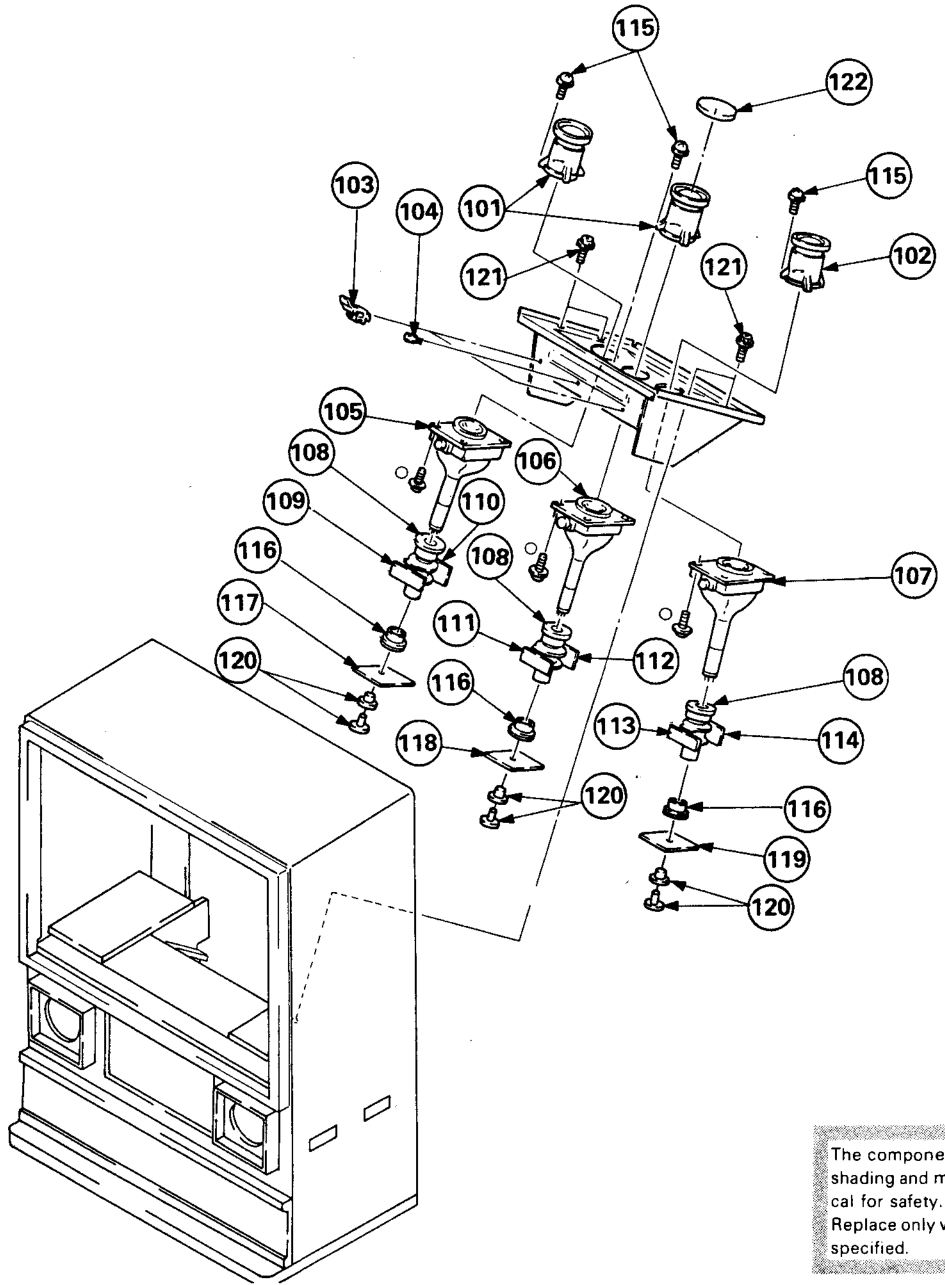


The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
51	*4-914-008-01	HOLDER, PCB	
52	⚠ 1-237-582-21	RESISTOR ASSY, HIGH-VOLTAGE	
53	*4-321-929-00	HOLDER, PC BOARD	
54	*A-1394-304-A	U BOARD COMPLETE	
55	*3-682-612-00	CLIP (B), ANCHOR	
56	X-4029-673-1	PANEL ASSY, CONNECTOR	
57	3-701-910-31	SCREW, SPECIAL	
58	4-030-413-01	MIRROR (53), REFLECTION	
59	4-397-074-01	COVER, MIRROR	
60	3-701-810-91	SCREW, TERMINAL	
61	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	

7-3. : PICTURE TUBE

○ : BVTP M4 × 16   7-685-663-79


115
122
115
103
104
101
102
121
121
105
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106
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116
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107
117
111
112
120
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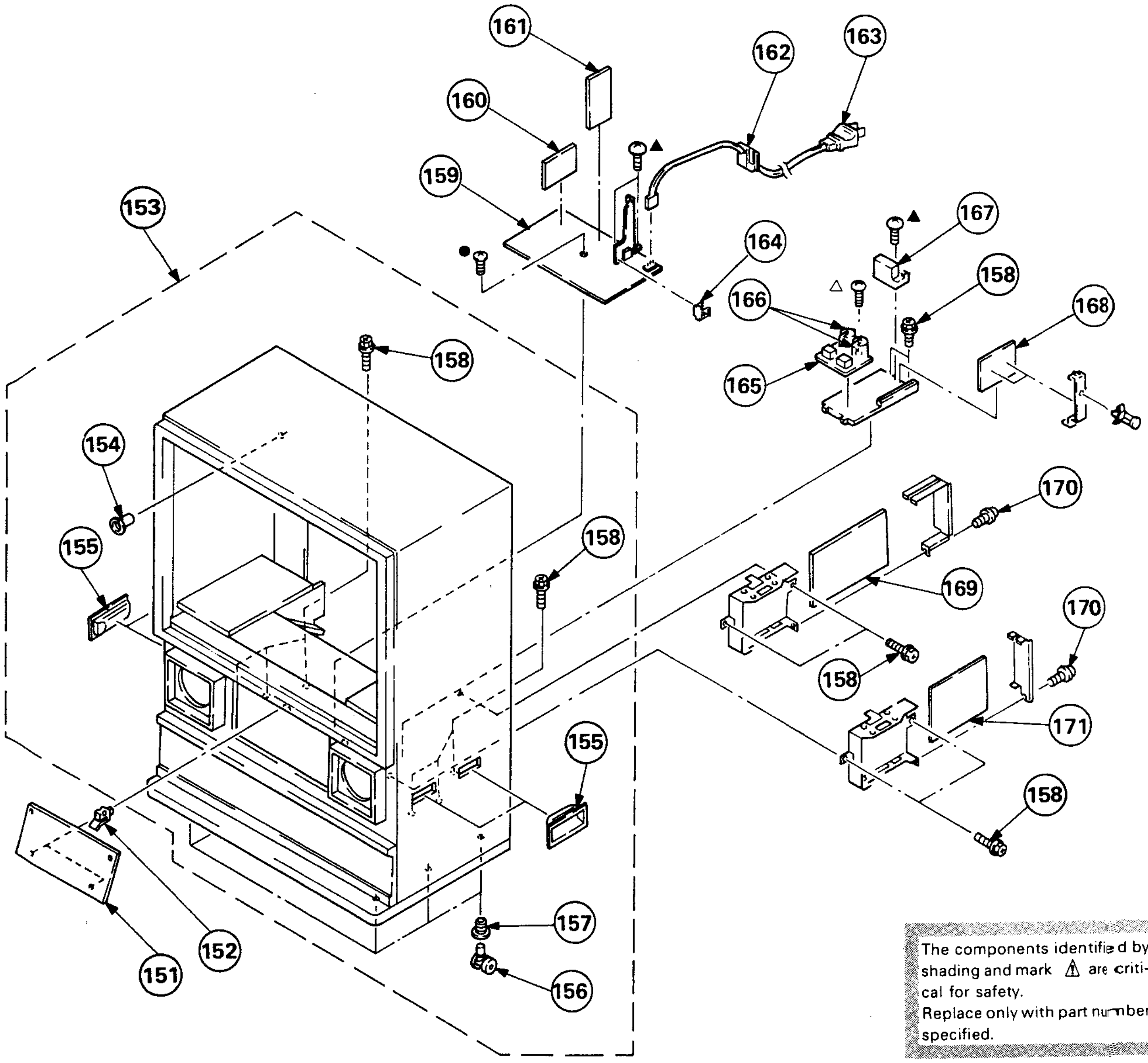
114
118
120
116
119
120

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
101	4-389-503-02	LENS	
102	4-389-503-12	LENS	
103	*3-703-141-00	HOLDER, PCB	
104	*4-861-614-00	HOLDER, PC BOARD	
105	⚠ 8-734-023-05	PICTURE TUBE (SD-208 (R))	
106	⚠ 8-734-021-05	PICTURE TUBE (SD-208 (G))	
107	⚠ 8-734-022-05	PICTURE TUBE (SD-208 (B))	
108	⚠ 1-451-322-11	DEFLECTION YOKE (Y636PA4)	
109	*1-625-929-11	XR BOARD	
110	*1-625-932-11	YR BOARD	
111	*1-625-930-11	XG BOARD	
112	*1-625-933-11	YG BOARD	
113	*1-625-931-11	XB BOARD	
114	*1-625-934-11	YB BOARD	
115	3-701-810-91	SCREW, TERMINAL	
116	⚠ 1-452-443-13	NECK ASSY, PICTURE TUBE (NA361)	
117	*A-1330-890-A	CR BOARD COMPLETE	
118	*A-1330-956-A	CG BOARD COMPLETE	
119	*A-1330-957-A	CG BOARD COMPLETE	
120	3-531-576-31	RIVET (DIA. 3), NYLON	
121	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
122	4-031-691-01	DISK	

7-4. : CHASSIS

● : BVTP 3 × 12 7-685-648-79
▲ : BVTP M4 7-685-661-79
△ : BVTP 4 × 8 7-685-659-79



The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
151	*A-1341-376-A	D BOARD COMPLETE	
152	*3-703-141-00	HOLDER, PCB	
153	*X-4029-841-1	CABINET ASSY	154-158
154	4-303-824-00	NUT	
155	4-371-635-31	HANDLE	
156	2-133-901-11	CASTER	
157	4-030-850-01	SOCKET, CASTER	
158	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
159	*A-1296-861-A	A BOARD COMPLETE	160, 161
160	*1-638-989-11	SC BOARD	
161	*A-1394-249-B	SX2 BOARD COMPLETE	
162	⚠ 4-389-778-01	HOLDER, AC CORD	
163	⚠ 1-574-745-11	CORD, POWER (WITH CONNECTOR)	
164	*4-399-421-01	SPRING, TR RETAINER	
165	*1-625-924-11	PC BOARD	
166	⚠ 1-439-408-21	TRANSFORMER ASSY, FLYBACK (NX-2022)	
167	⚠ 1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
168	*A-1190-151-A	P BOARD COMPLETE	
169	*A-1241-033-A	FA BOARD COMPLETE	
170	3-701-810-91	SCREW, TERMINAL	
171	⚠ 1-413-536-13	G BOARD (ZD-106A)	

SECTION 8
ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

- The components identified by ☒ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1190-151-A	P BOARD, COMPLETE *****************			
	*4-341-751-01	EYELET			
	*4-341-752-01	EYELET			
	*4-363-146-00	HEAT SINK, V.OUT			
	4-383-023-01	SPACER, MICA			
		<CAPACITOR>			
C516	1-106-381-12	MYLAR	0.039MF	10%	100V
C517	1-106-391-12	MYLAR	0.1MF	10%	200V
C521	1-106-351-00	MYLAR	0.0022MF	10%	100V
C802	1-123-024-21	ELECT	33MF		160V
C803	1-136-729-11	FILM	1.5MF	5%	400V
C804	1-108-700-11	MYLAR	0.047MF	10%	200V
C805	1-102-030-00	CERAMIC	330PF	10%	500V
C806	1-136-165-00	FILM	0.1MF	5%	50V
C807	1-124-907-11	ELECT	10MF	20%	50V
C808	1-124-360-00	ELECT	1000MF	20%	16V
C809	1-124-903-11	ELECT	1MF	20%	50V
C810	1-124-903-11	ELECT	1MF	20%	50V
C811	1-124-902-00	ELECT	0.47MF	20%	50V
C812	1-102-973-00	CERAMIC	100PF	5%	50V
C813	1-102-244-00	CERAMIC	220PF	10%	500V
C814	1-108-704-11	MYLAR	0.1MF	10%	200V
C815	1-108-692-11	MYLAR	0.01MF	10%	200V
C816	1-124-907-11	ELECT	10MF	20%	50V
C817	1-124-119-00	ELECT	330MF	20%	16V
C818	1-102-824-00	CERAMIC	470PF	5%	50V
C819	1-136-169-00	FILM	0.22MF	5%	50V
C820	1-124-907-11	ELECT	10MF	20%	50V
C821	1-124-907-11	ELECT	10MF	20%	50V
C822	1-124-034-51	ELECT	33MF	20%	16V
C823	1-124-907-11	ELECT	10MF	20%	50V
C824	1-124-034-51	ELECT	33MF	20%	16V
C825	1-124-034-51	ELECT	33MF	20%	16V
C826	1-124-907-11	ELECT	10MF	20%	50V
C827	1-124-907-11	ELECT	10MF	20%	50V
C828	1-124-907-11	ELECT	10MF	20%	50V
C829	1-124-034-51	ELECT	33MF	20%	16V
C830	1-124-907-11	ELECT	10MF	20%	50V
C831	1-108-638-11	MYLAR	0.1MF	10%	100V
C832	1-124-907-11	ELECT	10MF	20%	50V
C833	1-124-925-11	ELECT	2.2MF	20%	50V
C834	1-102-973-00	CERAMIC	100PF	5%	50V
C835	1-124-927-11	ELECT	4.7MF	20%	50V
C836	1-130-475-00	MYLAR	0.0022MF	5%	50V
C837	1-136-169-00	FILM	0.22MF	5%	50V
C838	1-130-475-00	MYLAR	0.0022MF	5%	50V
C839	1-102-106-00	CERAMIC	100PF	10%	50V

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<DIODE>	
D506	8-719-911-19	DIODE 1SS119	
D801	8-719-928-08	DIODE ERD28-08S	
D802	8-719-300-80	DIODE RU-1C	
D803	8-719-109-85	DIODE RD5.1ES-B2	
D804	8-719-911-19	DIODE 1SS119	
D805	8-719-911-19	DIODE 1SS119	
D806	8-719-109-85	DIODE RD5.1ES-B2	
D807	8-719-109-85	DIODE RD5.1ES-B2	
D808	8-719-911-19	DIODE 1SS119	
D809	8-719-911-19	DIODE 1SS119	
D810	8-719-911-19	DIODE 1SS119	
D811	8-719-109-85	DIODE RD5.1ES-B2	
D812	8-719-911-19	DIODE 1SS119	
D813	8-719-911-19	DIODE 1SS119	
D815	8-719-110-36	DIODE RD13ES-B2	
D874	8-719-110-78	DIODE RD33ES-B2	
		<IC>	
IC801	8-759-982-26	IC RC78L12A	
IC802	8-759-987-16	IC LM393P	
IC803	8-759-990-82	IC TL082CP	
IC804	8-759-987-16	IC LM393P	
IC805	8-759-100-75	IC UPC1394C	
		<COIL>	
L502	1-459-060-00	COIL,DYNAMIC CONVERSION CHOK	
L803	1-459-155-00	COIL (WITH CORE) 45UH	
L804	1-408-421-00	INDUCTOR 100UH	
		<NEON LAMP>	
NL1	1-519-108-99	LAMP,NEON ASSY	
		<CONNECTOR>	
P1	*1-564-507-11	PLUG, CONNECTOR 4P	
P2	*1-564-506-11	PLUG, CONNECTOR 3P	
P3	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4	
P4	*1-564-507-11	PLUG, CONNECTOR 4P	
P5	*1-564-508-11	PLUG, CONNECTOR 5P	
P6	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2	
P7	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3	
P8	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1	
P9	1-506-348-99	PIN, CONNECTOR 3P	
P10	1-506-348-99	PIN, CONNECTOR 3P	

P **FA**

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<TRANSISTOR>				
Q507	8-729-804-48	TRANSISTOR 2SC3675				
Q801	8-729-201-62	TRANSISTOR 2SC2555-2				
Q802	8-729-119-80	TRANSISTOR 2SC2688-LK				
Q803	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q806	8-729-119-80	TRANSISTOR 2SC2688-LK				
Q807	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q808	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q809	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q810	8-729-119-76	TRANSISTOR 2SA1175-HFE				
		<RESISTOR>				
R517	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R518	1-247-764-11	CARBON	10K	5%	1/2W	
R519	1-202-730-00	SOLID	8.2M	10%	1/2W	
R520	1-249-429-11	CARBON	10K	5%	1/4W	
R521	1-247-881-00	CARBON	120K	5%	1/4W	
R801	1-216-378-11	METAL OXIDE	5.6	5%	2W	F
R802	1-216-489-11	METAL OXIDE	27K	5%	3W	F
R803	1-216-489-11	METAL OXIDE	27K	5%	3W	F
R804	1-249-429-11	CARBON	10K	5%	1/4W	
R805	1-249-423-11	CARBON	3.3K	5%	1/4W	
R806	1-249-425-11	CARBON	4.7K	5%	1/4W	
R807	1-260-123-11	CARBON	100K	5%	1/2W	
R808	1-249-417-11	CARBON	1K	5%	1/4W	
R809	1-249-417-11	CARBON	1K	5%	1/4W	
R810	1-249-441-11	CARBON	100K	5%	1/4W	
R811	1-249-421-11	CARBON	2.2K	5%	1/4W	
R812	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R813	1-215-922-11	METAL OXIDE	6.8K	5%	3W	F
R816	1-214-777-00	METAL	100K	1%	1/4W	
R817	1-215-471-00	METAL	120K	1%	1/4W	
R818	1-215-471-00	METAL	120K	1%	1/4W	
R819	1-215-453-00	METAL	22K	1%	1/4W	
R820	1-215-453-00	METAL	22K	1%	1/4W	
R821	1-249-423-11	CARBON	3.3K	5%	1/4W	
R822	1-249-433-11	CARBON	22K	5%	1/4W	
R823	1-249-429-11	CARBON	10K	5%	1/4W	
R824	1-215-469-00	METAL	100K	1%	1/4W	
R825	1-214-761-00	METAL	22K	1%	1/4W	
⧓R826 ⚠		METAL			1/4W	
⧓R827 ⚠		METAL			1/4W	
R828	1-215-455-00	METAL	27K	1%	1/4W	
R829	1-215-476-00	METAL	200K	1%	1/4W	
⧓R830 ⚠		METAL			1/4W	
⧓R831 ⚠		METAL			1/4W	
R832	1-249-417-11	CARBON	1K	5%	1/4W	
R833	1-249-419-11	CARBON	1.5K	5%	1/4W	
R834	1-249-419-11	CARBON	1.5K	5%	1/4W	
R835	1-215-429-00	METAL	2.2K	1%	1/4W	
R836	1-215-435-00	METAL	3.9K	1%	1/4W	
R837	1-249-433-11	CARBON	22K	5%	1/4W	
R838	1-249-435-11	CARBON	33K	5%	1/4W	
R839	1-249-438-11	CARBON	56K	5%	1/4W	
R840	1-249-434-11	CARBON	27K	5%	1/4W	
R841	1-249-429-11	CARBON	10K	5%	1/4W	
R842	1-249-435-11	CARBON	33K	5%	1/4W	
R843	1-249-423-11	CARBON	3.3K	5%	1/4W	
R844	1-249-433-11	CARBON	22K	5%	1/4W	
R845	1-249-435-11	CARBON	33K	5%	1/4W	
R846	1-249-429-11	CARBON	10K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R847	1-215-873-00	METAL OXIDE	4.7K	5%	1W	F
R848	1-215-431-00	METAL	2.7K	1%	1/4W	
R849	1-215-431-00	METAL	2.7K	1%	1/4W	
R850	1-214-741-00	METAL	3.3K	1%	1/4W	
R851	1-214-747-00	METAL	5.6K	1%	1/4W	
R852⚠	1-214-739-71	METAL	2.7K	1%	1/4W	
R853	1-215-469-00	METAL	100K	1%	1/4W	
R854	1-249-430-11	CARBON	12K	5%	1/4W	
R855	1-215-469-00	METAL	100K	1%	1/4W	
R856	1-249-430-11	CARBON	12K	5%	1/4W	
R857	1-249-433-11	CARBON	22K	5%	1/4W	
R858	1-260-095-11	CARBON	470	5%	1/2W	
R859	1-249-435-11	CARBON	33K	5%	1/4W	
R860	1-249-441-11	CARBON	100K	5%	1/4W	
R862	1-249-434-11	CARBON	27K	5%	1/4W	
R863	1-249-431-11	CARBON	15K	5%	1/4W	
R864	1-249-428-11	CARBON	8.2K	5%	1/4W	
R865	1-249-440-11	CARBON	82K	5%	1/4W	
R866	1-249-436-11	CARBON	39K	5%	1/4W	
R867	1-249-437-11	CARBON	47K	5%	1/4W	
R868	1-249-428-11	CARBON	8.2K	5%	1/4W	
R869	1-249-429-11	CARBON	10K	5%	1/4W	
R870	1-260-099-11	CARBON	1K	5%	1/2W	
R871	1-260-122-11	CARBON	82K	5%	1/2W	
R879	1-216-489-11	METAL OXIDE	27K	5%	3W	F
R880	1-260-111-11	CARBON	10K	5%	1/2W	
R881	1-215-873-00	METAL OXIDE	4.7K	5%	1W	F
R882	1-215-473-00	METAL	150K	1%	1/4W	
R883	1-215-451-00	METAL	18K	1%	1/4W	
R884	1-249-401-11	CARBON	47	5%	1/4W	
R890	1-249-431-11	CARBON	15K	5%	1/4W	
R891	1-249-425-11	CARBON	4.7K	5%	1/4W	
		<SPARK GAP>				
SG1	1-519-422-11	GAP, SPARK				
		<TRANSFORMER>				
T503	1-413-059-00	TRANSFORMER, FERRITE (DFT)				
T801	1-437-078-00	TRANSFORMER, HORIZONTAL DRIVE				
T802	1-437-090-00	HDT				

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	*A-1241-033-A	FA BOARD, COMPLETE ******************				
	*4-341-751-01	EYELET				
	*4-341-752-01	EYELET				
	4-382-854-11	SCREW (M3X10), P, SW (+)				
		<CAPACITOR>				
C651 ⚠	1-136-360-51	FILM	0.22MF	20%	250V	
C652 ⚠	1-136-360-51	FILM	0.22MF	20%	250V	
C653 ⚠	1-136-360-51	FILM	0.22MF	20%	250V	
C654	1-162-599-12	CERAMIC	0.0047MF	20%	400V	
C655	1-162-599-12	CERAMIC	0.0047MF	20%	400V	
C656	1-125-531-11	ELECT(BLOCK)	820MF	20%	250V	
C657	1-125-531-11	ELECT(BLOCK)	820MF	20%	250V	
C658	1-161-742-00	CERAMIC	0.0022MF	20%	400V	
C659	1-161-742-00	CERAMIC	0.0022MF	20%	400V	
C660	1-101-003-00	CERAMIC	0.0047MF		50V	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

FA **FB** **A**

REF.NO.	PART NO.	DESCRIPTION			REMARK
C661	1-101-003-00	CERAMIC	0.0047MF		50V
C662	1-124-912-11	ELECT	330MF	20%	50V
C663	1-124-119-00	ELECT	330MF	20%	16V
C664	1-124-119-00	ELECT	330MF	20%	16V
C665	1-126-101-11	ELECT	100MF	20%	16V
C666	1-124-477-11	ELECT	47MF	20%	16V
C667	1-106-383-00	MYLAR	0.047MF	10%	100V
C668	1-124-925-11	ELECT	2.2MF	20%	50V
C669	1-124-907-11	ELECT	10MF	20%	50V
C670	1-124-907-11	ELECT	10MF	20%	50V
C671	1-129-722-00	FILM	0.047MF	10%	630V
C673	1-125-497-11	ELECT(BLOCK)	100MF	20%	400V
C674	1-130-495-00	MYLAR	0.1MF	5%	50V
C675	1-124-925-11	ELECT	2.2MF	20%	100V
C676	1-124-915-11	ELECT	10MF	20%	63V
C677	1-124-907-11	ELECT	10MF	20%	50V
C679	1-106-343-00	MYLAR	0.001MF	5%	50V
C680	1-102-244-00	CERAMIC	220PF	10%	500V

<DIODE>

D651	8-719-503-06	DIODE S3WB60Z
D652	8-719-511-40	DIODE S1VB40
D654	8-719-200-02	DIODE 10E2
D655	8-719-110-83	DIODE RD36ES-B2
D656	8-719-913-64	THYRISTOR CSM2B4A10
D657	8-719-976-64	DIODE RGP02-17
D658	8-719-110-83	DIODE RD36ES-B2
D659 ⚠	8-719-931-24	DIODE EQB01-24
D660	8-719-304-63	DIODE RM11C
D661	8-719-304-63	DIODE RM11C
D662	8-719-110-90	DIODE RD39ES-B4

<FUSE>

F651 ⚠	1-532-299-11	FUSE, TIME-LAG 5A/250V
	1-533-223-11	CLIP, FUSE; F651
F652 ⚠	1-532-283-51	FUSE 0.05A/250V
	*1-533-189-11	HOLDER, FUSE; F652

<CONNECTOR>

FA1	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P
FA2	*1-564-509-11	PLUG, CONNECTOR 6P
FA3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
FA4	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P

<IC>

IC651 ⚠	8-759-982-35	IC RC78M12FA
IC652 ⚠	8-759-982-21	IC RC78L05A
IC653 ⚠	8-749-921-67	IC STR80145A
IC654 ⚠	8-719-802-22	DIODE TLP581-Y

<COIL>

L651 ⚠	1-459-595-11	COIL, CHOKE
L652 ⚠	1-459-595-11	COIL, CHOKE

<TRANSISTOR>

Q651	8-729-378-84	TRANSISTOR 2SD788-5
Q652	8-729-201-99	TRANSISTOR 2SC3075
Q653	8-729-201-99	TRANSISTOR 2SC3075
Q654	8-729-119-78	TRANSISTOR 2SC2785-HFE

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q655	8-729-119-76	TRANSISTOR 2SA1175-HFE				

<RESISTOR>

R651 ⚠	1-202-723-91	SOLID	2.2M	10%	1/2W	
R652 ⚠	1-205-712-11	WIREWOUND	3.9	5%	20W F	
R653 ⚠	1-205-712-11	WIREWOUND	3.9	5%	20W F	
R654	1-214-921-00	CARBON	220K	5%	1/2W	
R655	1-214-921-00	CARBON	220K	5%	1/2W	
R656	1-249-423-11	CARBON	3.3K	5%	1/4W	
R657	1-249-421-11	CARBON	2.2K	5%	1/4W	
R658	1-249-417-11	CARBON	1K	5%	1/4W	F
R659	1-215-886-11	METAL OXIDE	100	5%	2W	F
R660	1-249-411-11	CARBON	330	5%	1/4W	
R661	1-249-403-11	CARBON	68	5%	1/4W	
R662	1-249-411-11	CARBON	330	5%	1/4W	
R663	1-249-408-11	CARBON	180	5%	1/4W	
R665	1-249-433-11	CARBON	22K	5%	1/4W	F
R666	1-249-441-11	CARBON	100K	5%	1/4W	
R667 ⚠	1-205-642-11	WIREWOUND	3.3K	10%	5W	F
R668 ⚠	1-205-642-11	WIREWOUND	3.3K	10%	5W	F
R669 ⚠	1-205-642-11	WIREWOUND	3.3K	10%	5W	F
R670 ⚠	1-205-642-11	WIREWOUND	3.3K	10%	5W	F
R671	1-249-417-11	CARBON	1K	5%	1/4W	F
R673	1-249-482-11	CARBON	4.7	5%	1/2W	F
R674	1-215-929-11	METAL OXIDE	100K	5%	3W	F
R675	1-215-875-11	METAL OXIDE	10K	5%	1W	F
R677	1-249-425-11	CARBON	4.7K	5%	1/4W	
R678	1-249-429-11	CARBON	10K	5%	1/4W	

<RELAY>

RY651 ⚠	1-515-579-11	RELAY
RY652 ⚠	1-515-510-11	RELAY

<TRANSFORMER>

T651 ⚠	1-421-944-11	TRANSFORMER, LINE FILTER
T652 ⚠	1-448-374-11	TRANSFORMER, POWER
T653 ⚠	1-421-776-11	LFT

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	*1-638-988-11	FB BOARD ********
	*4-341-752-01	EYELET

<CONNECTOR>

FB1	*1-565-426-11	PLUG, MINIATURE (L TYPE) 4P
FB2	*1-565-425-11	PLUG, MINIATURE (L TYPE) 3P

<SWITCH>

SW651 ⚠	1-571-433-12	SWITCH, PUSH (AC POWER)

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	*A-1296-861-A	A BOARD, COMPLETE *****************
	*4-341-751-01	EYELET
	*4-341-752-01	EYELET
	4-382-854-01	SCREW (M3X8), P, SW (+)
	4-383-022-01	SPACER, MICA

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

A

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
A1	*1-564-511-11	PLUG, CONNECTOR 8P	
A2	*1-564-509-11	PLUG, CONNECTOR 6P	
A4	*1-564-506-11	PLUG, CONNECTOR 3P	
A6	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
A7	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
A8	*1-564-509-11	PLUG, CONNECTOR 6P	
A9	*1-564-511-11	PLUG, CONNECTOR 8P	
A10	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
A11	*1-564-509-11	PLUG, CONNECTOR 6P	
A13	*1-564-506-11	PLUG, CONNECTOR 3P	
A15	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
A16	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
A17	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
A18	*1-564-510-11	PLUG, CONNECTOR 7P	
A19	*1-564-507-11	PLUG, CONNECTOR 4P	
A20	*1-564-508-11	PLUG, CONNECTOR 5P	
A21	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
A22	*1-564-512-11	PLUG, CONNECTOR 9P	
A25	*1-564-506-11	PLUG, CONNECTOR 3P	
A26	*1-564-506-11	PLUG, CONNECTOR 3P	
A28	*1-564-509-11	PLUG, CONNECTOR 6P	
A29	*1-564-511-11	PLUG, CONNECTOR 8P	
A31	*1-565-498-11	CONNECTOR, BOARD TO BOARD 7P	
A32	*1-565-498-11	CONNECTOR, BOARD TO BOARD 7P	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C001	1-102-961-00	CERAMIC	27PF	5%	50V
C002	1-102-965-00	CERAMIC	39PF	5%	50V
C003	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C004	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C006	1-102-973-00	CERAMIC	100PF	5%	50V
C008	1-101-880-00	CERAMIC	47PF	5%	50V
C009	1-101-880-00	CERAMIC	47PF	5%	50V
C010	1-126-101-11	ELECT	100MF	20%	16V
C011	1-108-808-11	MYLAR	0.022MF	5%	50V
C012	1-124-477-11	ELECT	47MF	20%	16V
C013	1-119-160-00	ELECT	470MF		10V
C014	1-102-978-00	CERAMIC	220PF	5%	50V
C015	1-102-978-00	CERAMIC	220PF	5%	50V
C016	1-102-978-00	CERAMIC	220PF	5%	50V
C017	1-102-978-00	CERAMIC	220PF	5%	50V
C021	1-124-927-11	ELECT	4.7MF	20%	50V
C022	1-124-903-11	ELECT	1MF	20%	50V
C023	1-124-903-11	ELECT	1MF	20%	50V
C024	1-124-903-11	ELECT	1MF	20%	50V
C025	1-124-477-11	ELECT	47MF	20%	16V
C026	1-102-978-00	CERAMIC	220PF	5%	50V
C027	1-124-477-11	ELECT	47MF	20%	16V
C035	1-102-978-00	CERAMIC	220PF	5%	50V
C036	1-101-006-00	CERAMIC	0.047MF		50V
C037	1-108-252-12	MYLAR	0.15MF	5%	50V
C038	1-101-004-00	CERAMIC	0.01MF		50V
C039	1-101-004-00	CERAMIC	0.01MF		50V
C040	1-102-074-00	CERAMIC	0.001MF	10%	50V
C042	1-108-624-11	MYLAR	0.0068MF	10%	100V
C043	1-124-907-11	ELECT	10MF	20%	50V
C044	1-124-907-11	ELECT	10MF	20%	50V
C045	1-124-907-11	ELECT	10MF	20%	50V
C046	1-124-907-11	ELECT	10MF	20%	50V
C110	1-124-046-00	ELECT	10MF	20%	160V
C111	1-124-557-11	ELECT	1000MF	20%	25V
C112	1-126-101-11	ELECT	100MF	20%	16V
C114	1-126-101-11	ELECT	100MF	20%	16V
C116	1-126-101-11	ELECT	100MF	20%	16V
C121	1-124-557-11	ELECT	1000MF	20%	25V
C204	1-124-477-11	ELECT	47MF	20%	16V
C205	1-124-903-11	ELECT	1MF	20%	50V
C206	1-124-927-11	ELECT	4.7MF	20%	50V
C207	1-124-907-11	ELECT	10MF	20%	50V
C219	1-124-477-11	ELECT	47MF	20%	16V
C236	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C238	1-124-464-11	ELECT	0.22MF	20%	50V
C239	1-126-233-11	ELECT	22MF	20%	25V
C241	1-124-907-11	ELECT	10MF	20%	50V
C242	1-126-320-11	ELECT	10MF	20%	16V
C243	1-102-973-00	CERAMIC	100PF	5%	50V
C244	1-108-816-11	MYLAR	0.1MF	5%	50V
C245	1-124-034-51	ELECT	33MF	20%	16V
C246	1-124-631-11	ELECT	47MF	20%	16V
C290	1-108-808-11	MYLAR	0.022MF	5%	50V
C291	1-124-903-11	ELECT	1MF	20%	50V
C292	1-130-483-00	MYLAR	0.01MF	5%	50V
C293	1-124-903-11	ELECT	1MF	20%	50V
C301	1-136-169-00	FILM	0.22MF	5%	50V
C303	1-136-169-00	FILM	0.22MF	5%	50V
C304	1-136-169-00	FILM	0.22MF	5%	50V
C305	1-136-169-00	FILM	0.22MF	5%	50V
C307	1-108-812-11	MYLAR	0.047MF	5%	50V
C309	1-124-903-11	ELECT	1MF	20%	50V
C310	1-101-004-00	CERAMIC	0.01MF		50V
C311	1-126-101-11	ELECT	100MF	20%	16V
C314	1-136-167-00	FILM	0.15MF	5%	50V
C315	1-136-173-00	FILM	0.47MF	5%	50V
C317	1-108-796-11	MYLAR	0.0022MF	5%	50V
C318	1-130-483-00	MYLAR	0.01MF	5%	50V
C319	1-126-233-11	ELECT	22MF	20%	50V
C321	1-126-101-11	ELECT	100MF	20%	16V
C323	1-136-169-00	FILM	0.22MF	5%	50V
C330	1-102-110-00	CERAMIC	220PF	10%	50V
C333	1-124-119-00	ELECT	330MF	20%	16V
C336	1-108-808-11	MYLAR	0.022MF	5%	50V
C340	1-102-115-00	CERAMIC	560PF	10%	50V
C341	1-136-173-00	FILM	0.47MF	5%	50V
C342	1-136-169-00	FILM	0.22MF	5%	50V
C343	1-108-816-11	MYLAR	0.1MF	5%	50V
C356	1-102-971-00	CERAMIC	82PF	5%	50V
C357	1-102-971-00	CERAMIC	82PF	5%	50V
C359	1-124-902-00	ELECT	0.47MF	20%	50V
C360	1-101-004-00	CERAMIC	0.01MF		50V
C361	1-102-978-00	CERAMIC	220PF	5%	50V
C371	1-124-903-11	ELECT	1MF	20%	50V
C372	1-124-902-00	ELECT	0.47MF	20%	50V
C391	1-126-101-11	ELECT	100MF	20%	16V
C396	1-124-119-00	ELECT	330MF	20%	16V
C417	1-124-477-11	ELECT	47MF	20%	16V
C502	1-126-101-11	ELECT	100MF	20%	16V
C503	1-126-101-11	ELECT	100MF	20%	16V
C504 ⚠	1-136-722-11	FILM	0.008MF	3%	1.6KV
C505	1-108-700-11	MYLAR	0.047MF	10%	200V
C506	1-102-030-00	CERAMIC	330PF	10%	500V
C507	1-102-973-00	CERAMIC	100PF	5%	50V
C508	1-124-902-00	ELECT	0.47MF	20%	50V
C509 ⚠	1-136-113-11	FILM	2MF	5%	200V
C510 ⚠	1-136-113-11	FILM	2MF	5%	200V

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C511	1-123-935-00	ELECT	33MF	20%	160V
C512	1-108-808-11	MYLAR	0.022MF	5%	50V
C513	1-108-700-11	MYLAR	0.047MF	10%	200V
C514	1-130-483-00	MYLAR	0.01MF	5%	50V
C515	1-124-477-11	ELECT	47MF	20%	16V
C518	1-124-662-11	ELECT	220MF	20%	50V
C519	1-124-662-11	ELECT	220MF	20%	50V
C520	1-124-662-11	ELECT	220MF	20%	50V
C528	1-102-111-41	CERAMIC	270PF	10%	50V
C551	1-108-808-11	MYLAR	0.022MF	5%	50V
C552	1-126-101-11	ELECT	100MF	20%	16V
C553	1-130-483-00	MYLAR	0.01MF	5%	50V
C554	1-102-824-00	CERAMIC	470PF	5%	50V
C555	1-130-483-00	MYLAR	0.01MF	5%	50V
C556	1-124-477-11	ELECT	47MF	20%	16V
C557	1-124-477-11	ELECT	47MF	20%	16V
C558	1-130-483-00	MYLAR	0.01MF	5%	50V
C559	1-102-824-00	CERAMIC	470PF	5%	50V
C560	1-130-483-00	MYLAR	0.01MF	5%	50V
C561	1-102-824-00	CERAMIC	470PF	5%	50V
C562	1-130-483-00	MYLAR	0.01MF	5%	50V
C563	1-102-824-00	CERAMIC	470PF	5%	50V
C564	1-108-808-11	MYLAR	0.022MF	5%	50V
C565	1-126-101-11	ELECT	100MF	20%	16V
C566	1-102-824-00	CERAMIC	470PF	5%	50V
C567	1-102-824-00	CERAMIC	470PF	5%	50V
C568	1-124-925-11	ELECT	2.2MF	20%	50V
C572	1-124-477-11	ELECT	47MF	20%	16V
C580	1-124-046-00	ELECT	10MF	20%	160V
C901	1-124-922-61	ELECT	1000MF	20%	63V
C902	1-124-122-11	ELECT	100MF	20%	50V
C903	1-124-122-11	ELECT	100MF	20%	50V
C904	1-124-618-11	ELECT	2200MF	20%	35V
C905	1-124-910-11	ELECT	47MF	20%	50V
C906	1-108-816-11	MYLAR	0.1MF	5%	50V
C908	1-124-122-11	ELECT	100MF	20%	50V
C909	1-124-902-00	ELECT	0.47MF	20%	50V
C910	1-102-122-00	CERAMIC	0.0027MF	10%	50V
C911	1-124-910-11	ELECT	47MF	20%	50V
C912	1-124-618-11	ELECT	2200MF	20%	35V
C913	1-108-816-11	MYLAR	0.1MF	5%	50V
C915	1-124-122-11	ELECT	100MF	20%	50V
C916	1-124-902-00	ELECT	0.47MF	20%	50V
C917	1-102-122-00	CERAMIC	0.0027MF	10%	50V
C922	1-124-119-00	ELECT	330MF	20%	16V
C923	1-126-101-11	ELECT	100MF	20%	16V
C924	1-124-360-00	ELECT	1000MF	20%	16V
C1328	1-101-004-00	CERAMIC	0.01MF		50V
C1329	1-101-004-00	CERAMIC	0.01MF		50V
C1330	1-124-464-11	ELECT	0.22MF	20%	50V
C1331	1-124-464-11	ELECT	0.22MF	20%	50V
C1332	1-124-464-11	ELECT	0.22MF	20%	50V
C1333	1-124-464-11	ELECT	0.22MF	20%	50V
C1334	1-124-464-11	ELECT	0.22MF	20%	50V
C1335	1-124-464-11	ELECT	0.22MF	20%	50V
C1336	1-126-157-11	ELECT	10MF	20%	16V
C1337	1-126-157-11	ELECT	10MF	20%	16V
C1338	1-124-902-00	ELECT	0.47MF	20%	50V
C1339	1-101-004-00	CERAMIC	0.01MF		50V
C1340	1-126-157-11	ELECT	10MF	20%	16V
C1341	1-124-907-11	ELECT	10MF	20%	50V
C1342	1-124-907-11	ELECT	10MF	20%	50V
C1343	1-101-004-00	CERAMIC	0.01MF		50V
C1344	1-124-477-11	ELECT	47MF	20%	16V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1345	1-124-477-11	ELECT	47MF	20%	16V
C1346	1-124-907-11	ELECT	10MF	20%	50V
C1347	1-108-796-11	MYLAR	0.0022MF	5%	50V
C1350	1-102-953-00	CERAMIC	18PF	5%	50V
C1351	1-108-812-11	MYLAR	0.047MF	5%	50V
C1353	1-126-101-11	ELECT	100MF	20%	16V
C2002	1-124-120-11	ELECT	220MF	20%	16V
C8500	1-124-903-11	ELECT	1MF	20%	50V
C8501	1-124-903-11	ELECT	1MF	20%	50V
C8502	1-108-812-11	MYLAR	0.047MF	5%	50V
C8503	1-124-907-11	ELECT	10MF	20%	50V
C8504	1-130-483-00	MYLAR	0.01MF	5%	50V
C8505	1-136-169-00	FILM	0.22MF	5%	50V
C8506	1-136-169-00	FILM	0.22MF	5%	50V
C8507	1-130-483-00	MYLAR	0.01MF	5%	50V
C8508	1-124-907-11	ELECT	10MF	20%	50V
C8509	1-124-907-11	ELECT	10MF	20%	50V
C8510	1-124-119-00	ELECT	330MF	20%	16V
C8511	1-126-101-11	ELECT	100MF	20%	16V
C8512	1-124-902-00	ELECT	0.47MF	20%	50V
C8513	1-124-902-00	ELECT	0.47MF	20%	50V
C8514	1-124-907-11	ELECT	10MF	20%	50V
C8515	1-124-907-11	ELECT	10MF	20%	50V
C8516	1-124-477-11	ELECT	47MF	20%	16V
C8521	1-124-477-11	ELECT	47MF	20%	16V
C8530	1-124-925-11	ELECT	2.2MF	20%	50V
C8531	1-124-925-11	ELECT	2.2MF	20%	50V

<COMPOSITION CIRCUIT BLOCK>

CP001	1-231-682-00	COMPOSITION CIRCUIT BLOCK
CP003	1-232-400-11	COMPOSITION CIRCUIT BLOCK
CP004	1-232-278-00	COMPOSITION CIRCUIT BLOCK
CP005	1-231-569-00	COMPOSITION CIRCUIT BLOCK
CP006	1-231-682-00	COMPOSITION CIRCUIT BLOCK
CP007	1-232-028-00	COMPOSITION CIRCUIT BLOCK
CP008	1-232-257-11	COMPOSITION CIRCUIT BLOCK

<TRIMMER>

CV358	1-141-245-00	TRIMMER, CERAMIC
CV443	1-141-245-00	TRIMMER, CERAMIC

<DIODE>

D001	8-719-911-19	DIODE 1SS119
D010	8-719-109-68	DIODE RD3.6ES-B1
D012	8-719-911-19	DIODE 1SS119
D102	8-719-911-19	DIODE 1SS119
D201	8-719-911-19	DIODE 1SS119
D202	8-719-109-66	DIODE RD3.3ES-B2
D204	8-719-911-19	DIODE 1SS119
D205	8-719-911-19	DIODE 1SS119
D290	8-719-911-19	DIODE 1SS119
D300	8-719-911-19	DIODE 1SS119
D301	8-719-911-19	DIODE 1SS119
D302	8-719-911-19	DIODE 1SS119
D303	8-719-109-93	DIODE RD6.2ES-B2
D304	8-719-911-19	DIODE 1SS119
D305	8-719-911-19	DIODE 1SS119
D310	8-719-911-19	DIODE 1SS119
D311	8-719-911-19	DIODE 1SS119
D501	8-719-300-80	DIODE RU-1C

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D504 ⚠	8-719-901-93	DIODE V19E	
D505 ⚠	8-719-901-93	DIODE V19E	
D507	8-719-911-19	DIODE 1SS119	
D901	8-719-911-19	DIODE 1SS119	
D902	8-719-911-19	DIODE 1SS119	
D904 ⚠	8-719-908-03	DIODE GP08D	
D905 ⚠	8-719-160-78	DIODE RD24F-B2	
D906	8-719-110-39	DIODE RD15ES-B1	
D907	8-719-911-19	DIODE 1SS119	
D1302	8-719-911-19	DIODE 1SS119	
D1303	8-719-911-19	DIODE 1SS119	
D1304	8-719-911-19	DIODE 1SS119	
D1305	8-719-110-12	DIODE RD9.1ES-B1	
D1306	8-719-110-12	DIODE RD9.1ES-B1	
D1307	8-719-110-12	DIODE RD9.1ES-B1	
D1308	8-719-911-19	DIODE 1SS119	
D1309	8-719-911-19	DIODE 1SS119	
D1310	8-719-110-12	DIODE RD9.1ES-B1	
D2000	8-719-911-19	DIODE 1SS119	
D8500	8-719-911-19	DIODE 1SS119	
		<DELAY LINE>	
DL301	1-415-122-31	DELAY LINE, 1H (PAL)	
		<IC>	
IC001	8-759-515-79	IC MB88E734-139	
IC002	8-759-102-28	IC UPD6326C	
IC101 ⚠	8-759-982-13	IC RC7812FA	
IC102 ⚠	8-759-982-37	IC RC78M93FD	
IC103 ⚠	8-759-982-31	IC RC78M05FA	
IC202	8-759-913-11	IC CX20125	
IC203	1-235-534-11	CONTROL MODULE, PICTURE	
IC301	8-752-036-21	IC CXA1213S	
IC551	8-759-945-58	IC RC4558P	
IC552	8-759-945-58	IC RC4558P	
IC553	8-759-945-58	IC RC4558P	
IC901 ⚠	8-749-920-14	IC STK4412	
IC1304	8-752-030-31	IC CXA1024S	
IC8500	8-759-820-63	IC LA7953	
IC8502	8-759-982-48	IC RC79L12A	
IC8503	8-759-008-71	IC LM324N	
		<COIL>	
L001	1-410-482-31	INDUCTOR 100UH	
L003	1-408-404-00	INDUCTOR 3.9UH	
L004	1-410-463-11	INDUCTOR 2.7UH	
L005	1-410-463-11	INDUCTOR 2.7UH	
L006	1-410-463-11	INDUCTOR 2.7UH	
L101	1-459-155-00	COIL (WITH CORE) 45UH	
L105	1-459-155-00	COIL (WITH CORE) 45UH	
L106	1-459-155-00	COIL (WITH CORE) 45UH	
L203	1-410-470-11	INDUCTOR 10UH	
L204	1-408-429-00	INDUCTOR 470UH	
L301	1-408-406-00	INDUCTOR 5.6UH	
L501	1-410-482-31	INDUCTOR 100UH	
L503 ⚠	1-459-241-12	COIL, HORIZONTAL LINIALITY	
L901	1-459-155-00	COIL (WITH CORE) 45UH	
L902	1-459-155-00	COIL (WITH CORE) 45UH	
L1306	1-410-470-11	INDUCTOR 10UH	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<TRANSISTOR>	
Q001	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q002	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q003	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q004	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q005	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q006	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q007	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q016	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q017	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q018	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q202	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q203	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q205	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q206	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q207	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q209	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q210	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q211	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q212	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q216	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q217	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q221	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q222	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q223	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q224	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q225	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q226	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q301	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q302	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q303	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q304	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q305	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q306	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q307	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q308	8-729-900-80	TRANSISTOR DTC114ES	
Q309	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q310	8-729-900-89	TRANSISTOR DTC144ES	
Q311	8-729-900-89	TRANSISTOR DTC144ES	
Q312	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q313	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q314	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q501	8-729-800-80	TRANSISTOR 2SD1399-CA	
Q502	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q503	8-729-386-12	TRANSISTOR 2SB861-C	
Q504	8-729-304-92	TRANSISTOR 2SB649A-C	
Q505	8-729-201-32	TRANSISTOR 2SA1013-O	
Q506	8-729-201-32	TRANSISTOR 2SA1013-O	
Q507	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q508	8-729-900-89	TRANSISTOR DTC144ES	
Q551	8-729-205-96	TRANSISTOR 2SC3668-O	
Q552	8-729-205-95	TRANSISTOR 2SA1428-Y	
Q553	8-729-205-96	TRANSISTOR 2SC3668-O	
Q554	8-729-205-95	TRANSISTOR 2SA1428-Y	
Q555	8-729-205-96	TRANSISTOR 2SC3668-O	
Q556	8-729-205-95	TRANSISTOR 2SA1428-Y	
Q904	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q905	8-729-900-36	TRANSISTOR DTC124ES	
Q907	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q908	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1312	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1318	8-729-119-78	TRANSISTOR 2SC2785-HFE	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1324	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1325	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1350	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1351	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1352	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1353	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1354	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1355	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1356	8-729-900-89	TRANSISTOR DTC144ES	
Q1357	8-729-900-89	TRANSISTOR DTC144ES	
Q2001	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q8501	8-729-378-84	TRANSISTOR 2SD788-5	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R001	1-249-421-11	CARBON	2.2K	5%	1/4W	
R003	1-249-416-11	CARBON	820	5%	1/4W	
R004	1-249-416-11	CARBON	820	5%	1/4W	
R005	1-249-416-11	CARBON	820	5%	1/4W	
R006	1-249-431-11	CARBON	15K	5%	1/4W	
R007	1-247-725-11	CARBON	10K	5%	1/4W	
R009	1-249-412-11	CARBON	390	5%	1/4W	
R011	1-249-421-11	CARBON	2.2K	5%	1/4W	
R012	1-249-437-11	CARBON	47K	5%	1/4W	
R013	1-249-437-11	CARBON	47K	5%	1/4W	
R014	1-249-441-11	CARBON	100K	5%	1/4W	
R015	1-249-433-11	CARBON	22K	5%	1/4W	
R016	1-249-417-11	CARBON	1K	5%	1/4W	
R017	1-247-725-11	CARBON	10K	5%	1/4W	
R018	1-249-421-11	CARBON	2.2K	5%	1/4W	
R019	1-249-421-11	CARBON	2.2K	5%	1/4W	
R020	1-249-417-11	CARBON	1K	5%	1/4W	
R022	1-249-409-11	CARBON	220	5%	1/4W	
R023	1-249-409-11	CARBON	220	5%	1/4W	
R025	1-249-417-11	CARBON	1K	5%	1/4W	
R027	1-249-413-11	CARBON	470	5%	1/4W	
R028	1-249-413-11	CARBON	470	5%	1/4W	
R030	1-249-421-11	CARBON	2.2K	5%	1/4W	
R031	1-249-421-11	CARBON	2.2K	5%	1/4W	
R032	1-249-426-11	CARBON	5.6K	5%	1/4W	
R033	1-249-423-11	CARBON	3.3K	5%	1/4W	
R037	1-249-433-11	CARBON	22K	5%	1/4W	
R038	1-249-417-11	CARBON	1K	5%	1/4W	
R039	1-249-417-11	CARBON	1K	5%	1/4W	
R040	1-249-417-11	CARBON	1K	5%	1/4W	
R041	1-249-417-11	CARBON	1K	5%	1/4W	
R042	1-249-417-11	CARBON	1K	5%	1/4W	
R043	1-249-429-11	CARBON	10K	5%	1/4W	
R044	1-249-429-11	CARBON	10K	5%	1/4W	
R045	1-249-434-11	CARBON	27K	5%	1/4W	
R046	1-249-411-11	CARBON	330	5%	1/4W	
R047	1-249-429-11	CARBON	10K	5%	1/4W	
R048	1-247-893-11	CARBON	390K	5%	1/4W	
R049	1-249-439-11	CARBON	68K	5%	1/4W	
R050	1-249-417-11	CARBON	1K	5%	1/4W	
R051	1-247-893-11	CARBON	390K	5%	1/4W	
R052	1-249-439-11	CARBON	68K	5%	1/4W	
R053	1-249-417-11	CARBON	1K	5%	1/4W	
R054	1-249-405-11	CARBON	100	5%	1/4W	
R055	1-249-405-11	CARBON	100	5%	1/4W	
R056	1-247-893-11	CARBON	390K	5%	1/4W	
R057	1-249-439-11	CARBON	68K	5%	1/4W	
R058	1-249-417-11	CARBON	1K	5%	1/4W	
R059	1-249-405-11	CARBON	100	5%	1/4W	
R063	1-249-427-11	CARBON	6.8K	5%	1/4W	
R064	1-249-427-11	CARBON	6.8K	5%	1/4W	
R067	1-249-416-11	CARBON	820	5%	1/4W	
R068	1-249-419-11	CARBON	1.5K	5%	1/4W	
R076	1-249-417-11	CARBON	1K	5%	1/4W	
R077	1-249-421-11	CARBON	2.2K	5%	1/4W	
R078	1-249-425-11	CARBON	4.7K	5%	1/4W	
R079	1-249-414-11	CARBON	560	5%	1/4W	
R080	1-249-433-11	CARBON	22K	5%	1/4W	
R081	1-249-416-11	CARBON	820	5%	1/4W	
R084	1-247-708-11	CARBON	470	5%	1/4W	
R085	1-249-425-11	CARBON	4.7K	5%	1/4W	
R087	1-249-438-11	CARBON	56K	5%	1/4W	
R088	1-249-423-11	CARBON	3.3K	5%	1/4W	
R089	1-249-463-11	CARBON	27K	5%	1/4W	
R090	1-249-433-11	CARBON	22K	5%	1/4W	
R091	1-249-429-11	CARBON	10K	5%	1/4W	
R092	1-249-435-11	CARBON	33K	5%	1/4W	
R093	1-249-429-11	CARBON	10K	5%	1/4W	
R094	1-249-417-11	CARBON	1K	5%	1/4W	
R095	1-249-421-11	CARBON	2.2K	5%	1/4W	
R096	1-249-438-11	CARBON	56K	5%	1/4W	
R116	1-215-882-00	METAL OXIDE	22	5%	2W	F
R117 ⚠	1-216-419-51	METAL OXIDE	6.8	5%	5W	F
R118 ⚠	1-215-882-91	METAL OXIDE	22	5%	2W	F
R121 ⚠	1-212-936-51	FUSIBLE	1.2	5%	1/2W	F
R122 ⚠	1-249-470-51	CARBON	0.47	5%	1/2W	F
R207	1-249-429-11	CARBON	10K	5%	1/4W	
R208	1-247-901-11	CARBON	820K	5%	1/4W	
R209	1-249-417-11	CARBON	1K	5%	1/4W	
R210	1-249-432-11	CARBON	18K	5%	1/4W	
R211	1-249-429-11	CARBON	10K	5%	1/4W	
R212	1-249-429-11	CARBON	10K	5%	1/4W	
R217	1-247-897-11	CARBON	560K	5%	1/4W	
R218	1-247-895-00	CARBON	470K	5%	1/4W	
R219	1-249-428-11	CARBON	8.2K	5%	1/4W	
R220	1-249-414-11	CARBON	560	5%	1/4W	
R221	1-249-412-11	CARBON	390	5%	1/4W	
R222	1-249-411-11	CARBON	330	5%	1/4W	
R223	1-249-418-11	CARBON	1.2K	5%	1/4W	
R224	1-247-899-11	CARBON	680K	5%	1/4W	
R225	1-249-418-11	CARBON	1.2K	5%	1/4W	
R226	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R228	1-249-422-11	CARBON	2.7K	5%	1/4W	
R234	1-249-411-11	CARBON	330	5%	1/4W	
R240	1-249-425-11	CARBON	4.7K	5%	1/4W	
R245	1-249-405-11	CARBON	100	5%	1/4W	
R247	1-249-405-11	CARBON	100	5%	1/4W	
R253	1-249-421-11	CARBON	2.2K	5%	1/4W	
R264	1-249-429-11	CARBON	10K	5%	1/4W	
R265	1-249-414-11	CARBON	560	5%	1/4W	
R266	1-249-417-11	CARBON	1K	5%	1/4W	
R267	1-249-418-11	CARBON	1.2K	5%	1/4W	
R268	1-249-425-11	CARBON	4.7K	5%	1/4W	
R269	1-249-413-11	CARBON	470	5%	1/4W	
R272	1-249-414-11	CARBON	560	5%	1/4W	
R274	1-249-419-11	CARBON	1.5K	5%	1/4W	
R275	1-249-425-11	CARBON	4.7K	5%	1/4W	
R276	1-249-430-11	CARBON	12K	5%	1/4W	
R277	1-249-433-11	CARBON	22K	5%	1/4W	
R278	1-249-419-11	CARBON	1.5K	5%	1/4W	
R279	1-249-403-11	CARBON	68	5%	1/4W	
R280	1-249-409-11	CARBON	220	5%	1/4W	
R281	1-249-423-11	CARBON	3.3K	5%	1/4W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R282	1-249-434-11	CARBON	27K	5%	1/4W	
R283	1-249-425-11	CARBON	4.7K	5%	1/4W	
R284	1-249-417-11	CARBON	1K	5%	1/4W	
R285	1-249-417-11	CARBON	1K	5%	1/4W	
R286	1-249-405-11	CARBON	100	5%	1/4W	
R293	1-249-423-11	CARBON	3.3K	5%	1/4W	
R294	1-249-423-11	CARBON	3.3K	5%	1/4W	
R295	1-249-423-11	CARBON	3.3K	5%	1/4W	
R300	1-249-417-11	CARBON	1K	5%	1/4W	
R301	1-249-425-11	CARBON	4.7K	5%	1/4W	
R302	1-249-421-11	CARBON	2.2K	5%	1/4W	
R303	1-249-417-11	CARBON	1K	5%	1/4W	
R305	1-249-409-11	CARBON	220	5%	1/4W	
R306	1-249-409-11	CARBON	220	5%	1/4W	
R307	1-249-409-11	CARBON	220	5%	1/4W	
R308	1-249-408-11	CARBON	180	5%	1/4W	
R309	1-249-425-11	CARBON	4.7K	5%	1/4W	
R310	1-249-413-11	CARBON	470	5%	1/4W	
R311	1-215-455-00	METAL	27K	1%	1/4W	
R313	1-249-412-11	CARBON	390	5%	1/4W	
R314	1-249-437-11	CARBON	47K	5%	1/4W	
R315	1-249-413-11	CARBON	470	5%	1/4W	
R316	1-249-412-11	CARBON	390	5%	1/4W	
R317	1-249-417-11	CARBON	1K	5%	1/4W	
R318	1-249-417-11	CARBON	1K	5%	1/4W	
R320	1-249-421-11	CARBON	2.2K	5%	1/4W	
R321	1-249-441-11	CARBON	100K	5%	1/4W	
R322	1-249-426-11	CARBON	5.6K	5%	1/4W	
R324	1-247-891-00	CARBON	330K	5%	1/4W	
R331	1-249-417-11	CARBON	1K	5%	1/4W	
R333	1-249-421-11	CARBON	2.2K	5%	1/4W	
R334	1-249-411-11	CARBON	330	5%	1/4W	
R335	1-249-421-11	CARBON	2.2K	5%	1/4W	
R336	1-249-411-11	CARBON	330	5%	1/4W	
R337	1-249-421-11	CARBON	2.2K	5%	1/4W	
R338	1-249-411-11	CARBON	330	5%	1/4W	
R347	1-249-433-11	CARBON	22K	5%	1/4W	F
R351	1-249-441-11	CARBON	100K	5%	1/4W	F
R352	1-249-417-11	CARBON	1K	5%	1/4W	
R353	1-215-919-11	METAL OXIDE	2.2K	5%	3W	F
R354	1-249-423-11	CARBON	3.3K	5%	1/4W	
R355	1-249-429-11	CARBON	10K	5%	1/4W	
R356	1-249-437-11	CARBON	47K	5%	1/4W	
R357	1-249-411-11	CARBON	330	5%	1/4W	
R358	1-249-417-11	CARBON	1K	5%	1/4W	
R359	1-249-420-11	CARBON	1.8K	5%	1/4W	
R361	1-249-421-11	CARBON	2.2K	5%	1/4W	
R362	1-249-423-11	CARBON	3.3K	5%	1/4W	
R363	1-249-433-11	CARBON	22K	5%	1/4W	
R364	1-249-425-11	CARBON	4.7K	5%	1/4W	
R365	1-249-421-11	CARBON	2.2K	5%	1/4W	
R366	1-216-482-11	METAL OXIDE	1.8K	5%	3W	F
R367	1-216-482-11	METAL OXIDE	1.8K	5%	3W	F
R368	1-249-430-11	CARBON	12K	5%	1/4W	
R369	1-215-919-11	METAL OXIDE	2.2K	5%	3W	F
R370	1-259-880-11	CARBON	2.2M	5%	1/4W	
R371	1-249-417-11	CARBON	1K	5%	1/4W	
R372	1-249-418-11	CARBON	1.2K	5%	1/4W	
R373	1-249-418-11	CARBON	1.2K	5%	1/4W	
R374	1-249-417-11	CARBON	1K	5%	1/4W	
R375	1-249-417-11	CARBON	1K	5%	1/4W	
R376	1-249-425-11	CARBON	4.7K	5%	1/4W	
R378	1-249-421-11	CARBON	2.2K	5%	1/4W	
R379	1-249-423-11	CARBON	3.3K	5%	1/4W	
R380	1-249-431-11	CARBON	15K	5%	1/4W	
R381	1-249-431-11	CARBON	15K	5%	1/4W	
R382	1-249-434-11	CARBON	27K	5%	1/4W	
R383	1-249-415-11	CARBON	680	5%	1/4W	
R391	1-249-431-11	CARBON	15K	5%	1/4W	
R392	1-249-429-11	CARBON	10K	5%	1/4W	
R408	1-249-414-11	CARBON	560	5%	1/4W	
R409	1-249-414-11	CARBON	560	5%	1/4W	
R417	1-249-425-11	CARBON	4.7K	5%	1/4W	
R418	1-249-429-11	CARBON	10K	5%	1/4W	
R502⚠	1-215-921-91	METAL OXIDE	4.7K	5%	3W	F
R503	1-216-446-00	METAL OXIDE	18	5%	2W	F
R504	1-215-868-00	METAL OXIDE	680	5%	1W	F
R505	1-249-429-11	CARBON	10K	5%	1/4W	F
R506	1-249-423-11	CARBON	3.3K	5%	1/4W	
R508	1-249-434-11	CARBON	27K	5%	1/4W	
R510⚠	1-249-417-91	CARBON	1K	5%	1/4W	F
R511	1-249-417-11	CARBON	1K	5%	1/4W	
R512⚠	1-215-900-91	METAL OXIDE	22K	5%	2W	F
R513	1-247-713-11	CARBON	1K	5%	1/4W	
R514	1-247-895-00	CARBON	470K	5%	1/4W	
R515	1-249-421-11	CARBON	2.2K	5%	1/4W	
R516	1-249-422-11	CARBON	2.7K	5%	1/4W	
R517	1-247-713-11	CARBON	1K	5%	1/4W	
R522	1-249-411-11	CARBON	330	5%	1/4W	
R525	1-249-385-11	CARBON	2.2	5%	1/4W	F
R526	1-249-385-11	CARBON	2.2	5%	1/4W	F
R527	1-249-385-11	CARBON	2.2	5%	1/4W	F
R551	1-249-405-11	CARBON	100	5%	1/4W	
R552	1-215-423-00	METAL	1.2K	1%	1/4W	
R553	1-249-417-11	CARBON	1K	5%	1/4W	
R554	1-215-375-00	METAL	12	1%	1/4W	
R555	1-215-375-00	METAL	12	1%	1/4W	
R556	1-215-375-00	METAL	12	1%	1/4W	
R557	1-215-445-00	METAL	10K	1%	1/4W	
R558	1-215-445-00	METAL	10K	1%	1/4W	
R559	1-215-445-00	METAL	10K	1%	1/4W	
R560	1-249-405-11	CARBON	100	5%	1/4W	
R561	1-215-445-00	METAL	10K	1%	1/4W	
R562	1-215-423-00	METAL	1.2K	1%	1/4W	
R563	1-215-375-00	METAL	12	1%	1/4W	
R564	1-215-375-00	METAL	12	1%	1/4W	
R565	1-215-375-00	METAL	12	1%	1/4W	
R566	1-215-445-00	METAL	10K	1%	1/4W	
R567	1-215-445-00	METAL	10K	1%	1/4W	
R568	1-215-445-00	METAL	10K	1%	1/4W	
R569	1-249-417-11	CARBON	1K	5%	1/4W	
R570	1-215-423-00	METAL	1.2K	1%	1/4W	
R571	1-215-375-00	METAL	12	1%	1/4W	
R572	1-215-375-00	METAL	12	1%	1/4W	
R573	1-215-375-00	METAL	12	1%	1/4W	
R574	1-215-445-00	METAL	10K	1%	1/4W	
R575	1-215-445-00	METAL	10K	1%	1/4W	
R576	1-215-445-00	METAL	10K	1%	1/4W	
R577	1-249-417-11	CARBON	1K	5%	1/4W	
R578	1-215-445-00	METAL	10K	1%	1/4W	
R579	1-215-445-00	METAL	10K	1%	1/4W	
R581	1-249-441-11	CARBON	100K	5%	1/4W	
R582	1-247-713-11	CARBON	1K	5%	1/4W	
R583	1-249-433-11	CARBON	22K	5%	1/4W	
R585	1-249-425-11	CARBON	4.7K	5%	1/4W	
R588	1-249-429-11	CARBON	10K	5%	1/4W	
R589	1-249-432-11	CARBON	18K	5%	1/4W	

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R592	1-249-405-11	CARBON	100	5%	1/4W	
R593	1-249-417-11	CARBON	1K	5%	1/4W	
R595 ⚠	1-249-377-91	CARBON	0.47	5%	1/4W	F
R596 ⚠	1-249-377-91	CARBON	0.47	5%	1/4W	F
R597	1-249-433-11	CARBON	22K	5%	1/4W	
R598	1-249-419-11	CARBON	1.5K	5%	1/4W	
R801	1-249-418-11	CARBON	1.2K	5%	1/4W	
R901	1-249-405-11	CARBON	100	5%	1/4W	F
R902	1-247-887-00	CARBON	220K	5%	1/4W	
R903	1-249-441-11	CARBON	100K	5%	1/4W	
R904	1-249-441-11	CARBON	100K	5%	1/4W	
R905	1-249-433-11	CARBON	22K	5%	1/4W	
R906	1-249-441-11	CARBON	100K	5%	1/4W	
R907	1-249-433-11	CARBON	22K	5%	1/4W	
R908	1-249-407-11	CARBON	150	5%	1/4W	
R909	1-249-426-11	CARBON	5.6K	5%	1/4W	
R911	1-249-389-11	CARBON	4.7	5%	1/4W	
R912	1-249-426-11	CARBON	5.6K	5%	1/4W	
R914	1-249-407-11	CARBON	150	5%	1/4W	
R915	1-249-389-11	CARBON	4.7	5%	1/4W	
R921	1-249-441-11	CARBON	100K	5%	1/4W	
R922	1-249-418-11	CARBON	1.2K	5%	1/4W	
R923	1-207-451-00	WIREWOUND	0.1	10%	1/2W	
R924	1-215-888-00	METAL OXIDE	220	5%	2W	F
R925	1-215-888-00	METAL OXIDE	220	5%	2W	F
R926	1-202-838-00	SOLID	100K	10%	1/2W	
R927	1-249-437-11	CARBON	47K	5%	1/4W	
R928	1-249-441-11	CARBON	100K	5%	1/4W	
R929	1-249-429-11	CARBON	10K	5%	1/4W	
R931	1-249-441-11	CARBON	100K	5%	1/4W	
R932 ⚠	1-215-916-91	METAL OXIDE	680	5%	3W	F
R933	1-249-413-11	CARBON	470	5%	1/4W	
R1256	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1257	1-249-416-11	CARBON	820	5%	1/4W	
R1258	1-249-433-11	CARBON	22K	5%	1/4W	
R1259	1-249-416-11	CARBON	820	5%	1/4W	
R1271	1-249-428-11	CARBON	8.2K	5%	1/4W	
R1280	1-249-429-11	CARBON	10K	5%	1/4W	
R1281	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1285	1-249-437-11	CARBON	47K	5%	1/4W	
R1286	1-249-437-11	CARBON	47K	5%	1/4W	
R1287	1-249-437-11	CARBON	47K	5%	1/4W	
R1291	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1292	1-249-429-11	CARBON	10K	5%	1/4W	
R1298	1-249-417-11	CARBON	1K	5%	1/4W	
R1299	1-247-895-00	CARBON	470K	5%	1/4W	
R1302	1-249-401-11	CARBON	47	5%	1/4W	
R1303	1-249-401-11	CARBON	47	5%	1/4W	
R1304	1-249-401-11	CARBON	47	5%	1/4W	
R1305	1-249-433-11	CARBON	22K	5%	1/4W	
R1306	1-215-459-00	METAL	39K	1%	1/4W	
R1307	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1308	1-249-409-11	CARBON	220	5%	1/4W	
R1309	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1310	1-249-409-11	CARBON	220	5%	1/4W	
R1311	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1312	1-249-409-11	CARBON	220	5%	1/4W	
R1339	1-215-465-00	METAL	68K	1%	1/4W	
R1343	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1367	1-249-441-11	CARBON	100K	5%	1/4W	
R1368	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1369	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1370	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1371	1-249-419-11	CARBON	1.5K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1373	1-249-417-11	CARBON	1K	5%	1/4W	
R1374	1-249-433-11	CARBON	22K	5%	1/4W	
R1375	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1376	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1377	1-249-422-11	CARBON	2.7K	5%	1/4W	
R1378	1-249-428-11	CARBON	8.2K	5%	1/4W	
R1379	1-249-415-11	CARBON	680	5%	1/4W	
R1380	1-249-415-11	CARBON	680	5%	1/4W	
R1381	1-249-420-11	CARBON	1.8K	5%	1/4W	
R1382	1-249-438-11	CARBON	56K	5%	1/4W	
R1384	1-249-417-11	CARBON	1K	5%	1/4W	
R1385	1-249-417-11	CARBON	1K	5%	1/4W	
R1386	1-249-433-11	CARBON	22K	5%	1/4W	
R1387	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1388	1-249-409-11	CARBON	220	5%	1/4W	
R1389	1-249-409-11	CARBON	220	5%	1/4W	
R1390	1-249-409-11	CARBON	220	5%	1/4W	
R1392	1-249-417-11	CARBON	1K	5%	1/4W	
R1393	1-249-421-11	CARBON	2.2K	5%	1/4W	
R2006	1-249-433-11	CARBON	22K	5%	1/4W	
R2007	1-249-417-11	CARBON	1K	5%	1/4W	
R2008	1-249-437-11	CARBON	47K	5%	1/4W	
R2009	1-249-433-11	CARBON	22K	5%	1/4W	
R2020	1-249-409-11	CARBON	220	5%	1/4W	
R2021	1-249-409-11	CARBON	220	5%	1/4W	
R2022	1-249-409-11	CARBON	220	5%	1/4W	
R8500	1-249-417-11	CARBON	1K	5%	1/4W	
R8501	1-249-417-11	CARBON	1K	5%	1/4W	
R8502	1-249-426-11	CARBON	5.6K	5%	1/4W	
R8503	1-249-426-11	CARBON	5.6K	5%	1/4W	
R8504	1-249-426-11	CARBON	5.6K	5%	1/4W	
R8505	1-249-426-11	CARBON	5.6K	5%	1/4W	
R8506	1-249-417-11	CARBON	1K	5%	1/4W	
R8507	1-247-887-00	CARBON	220K	5%	1/4W	
R8508	1-249-422-11	CARBON	2.7K	5%	1/4W	
R8511	1-249-430-11	CARBON	12K	5%	1/4W	
R8512	1-249-430-11	CARBON	12K	5%	1/4W	
R8513	1-249-438-11	CARBON	56K	5%	1/4W	
R8514	1-249-433-11	CARBON	22K	5%	1/4W	
R8515	1-249-425-11	CARBON	4.7K	5%	1/4W	
R8516	1-249-431-11	CARBON	15K	5%	1/4W	
R8517	1-249-431-11	CARBON	15K	5%	1/4W	
R8518	1-249-438-11	CARBON	56K	5%	1/4W	
R8519	1-249-433-11	CARBON	22K	5%	1/4W	
R8520	1-249-425-11	CARBON	4.7K	5%	1/4W	
R8529	1-249-431-11	CARBON	15K	5%	1/4W	
R8530	1-249-431-11	CARBON	15K	5%	1/4W	
R8531	1-249-441-11	CARBON	100K	5%	1/4W	
R8532	1-249-441-11	CARBON	100K	5%	1/4W	
R8540	1-249-425-11	CARBON	4.7K	5%	1/4W	
R8541	1-249-438-11	CARBON	56K	5%	1/4W	
R8542	1-249-429-11	CARBON	10K	5%	1/4W	
R8543	1-249-429-11	CARBON	10K	5%	1/4W	
R8544	1-249-438-11	CARBON	56K	5%	1/4W	
R8545	1-249-425-11	CARBON	4.7K	5%	1/4W	
R8546	1-249-430-11	CARBON	12K	5%	1/4W	
R8547	1-249-430-11	CARBON	12K	5%	1/4W	

<VARIABLE RESISTOR>

RV201	1-238-011-11	RES, ADJ, CARBON 470
RV301	1-238-011-11	RES, ADJ, CARBON 470
RV302	1-238-019-11	RES, ADJ, CARBON 47K

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV303	1-238-013-11	RES, ADJ, CARBON 2.2K	
RV304	1-238-013-11	RES, ADJ, CARBON 2.2K	
RV901	1-238-016-11	RES, ADJ, CARBON 10K	
RV902	1-238-016-11	RES, ADJ, CARBON 10K	
RV1303	1-238-016-11	RES, ADJ, CARBON 10K	

<RELAY>

RY901	⚠ 1-515-533-11	RELAY	

<TRANSFORMER>

T001	1-404-538-11	COIL	
T301	1-404-524-11	DAT	
T501	⚠ 1-439-320-12	TRANSFORMER, FERRITE (HOT)	
T502	1-437-078-00	TRANSFORMER, HORIZONTAL DRIVE	

<THERMISTOR>

TH1301	1-807-976-11	THERMISTOR	

<CRYSTAL>

X001	1-567-192-11	OSCILLATOR, CERAMIC	
X301	1-577-611-11	OSCILALTOR, CERAMIC	
X358	1-567-505-11	OSCILLATOR, CRYSTAL	
X443	1-567-504-11	OSCILLATOR, CRYSTAL	

****

*1-638-989-11 SC BOARD
****

<CAPACITOR>

C401	1-124-477-11	ELECT	47MF	20%	16V
C402	1-101-004-00	CERAMIC	0.01MF		50V
C403	1-101-890-00	CERAMIC	75PF	5%	50V
C404	1-102-961-00	CERAMIC	27PF	5%	50V
C405	1-136-165-00	FILM	0.1MF	5%	50V
C406	1-102-816-00	CERAMIC	120PF	5%	50V
C407	1-124-903-11	ELECT	1MF	20%	50V
C408	1-108-689-11	MYLAR	0.0056MF	5%	50V
C409	1-101-004-00	CERAMIC	0.01MF		50V
C410	1-102-816-00	CERAMIC	120PF	5%	50V
C411	1-136-165-00	FILM	0.1MF	5%	50V
C412	1-102-959-00	CERAMIC	22PF	5%	50V
C413	1-101-890-00	CERAMIC	75PF	5%	50V
C414	1-102-816-00	CERAMIC	120PF	5%	50V
C415	1-136-165-00	FILM	0.1MF	5%	50V
C416	1-102-973-00	CERAMIC	100PF	5%	50V

<IC>

IC401	8-752-036-22	IC CXA1214P	

<COIL>

L401	1-408-411-00	INDUCTOR	15UH
L402	1-408-411-00	INDUCTOR	15UH

<TRANSISTOR>

Q401	8-729-119-78	TRANSISTOR 2SC2785-HFE	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R401	1-247-704-11	CARBON	220	5%	1/4W	
R402	1-249-412-11	CARBON	390	5%	1/4W	
R403	1-249-412-11	CARBON	390	5%	1/4W	
R404	1-249-408-11	CARBON	180	5%	1/4W	
R405	1-249-417-11	CARBON	1K	5%	1/4W	
R406	1-247-717-11	CARBON	2.2K	5%	1/4W	
R407	1-247-903-00	CARBON	1M	5%	1/4W	

<CONNECTOR>

SC1	*1-565-483-11	CONNECTOR, BOARD TO BOARD 7P	
SC2	*1-565-483-11	CONNECTOR, BOARD TO BOARD 7P	

<TRANSFORMER>

T401	1-404-496-00	COIL	
T402	1-404-496-00	COIL	
T403	1-404-584-11	COIL	

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*A-1394-249-B SX2 BOARD, COMPLETE
****

<CAPACITOR>

C1001	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V
C1002	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V
C1003	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C1004	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V
C1005	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C1006	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V
C1007	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V
C1008	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V
C1009	1-124-927-11	ELECT	4.7MF	20%	50V
C1010	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C1011	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1012	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1013	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1014	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1015	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1016	1-124-927-11	ELECT	4.7MF	20%	50V
C1017	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1018	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1019	1-126-157-11	ELECT	10MF	20%	16V
C1020	1-124-927-11	ELECT	4.7MF	20%	50V
C1021	1-126-301-11	ELECT	1MF	20%	50V
C1022	1-124-927-11	ELECT	4.7MF	20%	50V
C1023	1-124-252-00	ELECT	0.33MF	20%	50V
C1024	1-124-927-11	ELECT	4.7MF	20%	50V
C1025	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1026	1-124-927-11	ELECT	4.7MF	20%	50V
C1027	1-124-927-11	ELECT	4.7MF	20%	50V
C1028	1-126-157-11	ELECT	10MF	20%	16V
C1029	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1030	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C1031	1-124-902-00	ELECT	0.47MF	20%	50V
C1032	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C1033	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C1034	1-124-907-11	ELECT	10MF	20%	50V
C1035	1-124-478-11	ELECT	100MF	20%	25V
C1036	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V

SX2

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1037	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1038	1-124-927-11	ELECT	4.7MF	20%	50V
C1039	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1040	1-124-477-11	ELECT	47MF	20%	25V
C1041	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C1042	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C1043	1-124-252-00	ELECT	0.33MF	20%	50V
C1044	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C1045	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1046	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1047	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1048	1-163-138-00	CERAMIC CHIP	750PF	5%	50V
C1049	1-126-163-11	ELECT	4.7MF	20%	25V
C1050	1-124-927-11	ELECT	4.7MF	20%	50V
C1051	1-126-163-11	ELECT	4.7MF	20%	25V
C1052	1-126-301-11	ELECT	1MF	20%	50V
C1053	1-124-903-11	ELECT	1MF	20%	50V
C1054	1-124-925-11	ELECT	2.2MF	20%	50V
C1055	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1056	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1057	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C1058	1-124-903-11	ELECT	1MF	20%	50V
C1059	1-124-903-11	ELECT	1MF	20%	50V
C1060	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C1061	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C1062	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C1063	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C1064	1-124-927-11	ELECT	4.7MF	20%	50V
C1065	1-124-927-11	ELECT	4.7MF	20%	50V
C1066	1-124-927-11	ELECT	4.7MF	20%	50V
C1067	1-124-927-11	ELECT	4.7MF	20%	50V
C1068	1-124-927-11	ELECT	4.7MF	20%	50V
C1069	1-124-927-11	ELECT	4.7MF	20%	50V
C1070	1-124-927-11	ELECT	4.7MF	20%	50V

<IC>

IC1001	8-759-031-31	IC MC33174M
IC1002	8-752-050-75	IC CXA1373Q
IC1003	8-759-038-68	IC MC33172ML
IC1004	8-759-008-67	IC MC14066BF
IC1005	8-759-031-31	IC MC33174M
IC1006	8-759-106-22	IC UPD4052BG

<TRANSISTOR>

Q1001	8-729-230-49	TRANSISTOR 2SC2712-YG

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1001	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R1002	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R1003	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R1004	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R1005	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R1006	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R1007	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R1008	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R1009	1-216-072-00	METAL GLAZE	9.1K	5%	1/10W
R1010	1-216-286-00	METAL GLAZE	4.7M	5%	1/8W
R1011	1-216-286-00	METAL GLAZE	4.7M	5%	1/8W
R1012	1-216-286-00	METAL GLAZE	4.7M	5%	1/8W
R1013	1-216-286-00	METAL GLAZE	4.7M	5%	1/8W
R1014	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R1015	1-216-127-11	METAL GLAZE	1.8M	5%	1/10W
R1016	1-216-286-00	METAL GLAZE	4.7M	5%	1/8W
R1017	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W
R1018	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W
R1019	1-216-286-00	METAL GLAZE	4.7M	5%	1/8W
R1020	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1021	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1022	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R1023	1-216-127-11	METAL GLAZE	1.8M	5%	1/10W
R1024	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R1025	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R1026	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1027	1-216-048-00	METAL GLAZE	910	5%	1/10W
R1028	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1029	1-216-286-00	METAL GLAZE	4.7M	5%	1/8W
R1030	1-216-286-00	METAL GLAZE	4.7M	5%	1/8W
R1031	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1032	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R1033	1-216-082-00	METAL GLAZE	24K	5%	1/10W
R1034	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R1035	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R1036	1-218-160-11	METAL GLAZE	43K	1%	1/10W
R1037	1-216-103-00	METAL GLAZE	180K	5%	1/10W
R1038	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R1039	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1040	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1041	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R1042	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R1043	1-218-160-11	METAL GLAZE	43K	1%	1/10W
R1044	1-216-103-00	METAL GLAZE	180K	5%	1/10W
R1045	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R1046	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1047	1-216-082-00	METAL GLAZE	24K	5%	1/10W
R1048	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R1049	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R1050	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R1051	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R1052	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R1053	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R1054	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R1055	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1056	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R1057	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1058	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R1059	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1060	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R1061	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R1062	1-216-295-00	METAL GLAZE	0	5%	1/10W
R1063	1-216-295-00	METAL GLAZE	0	5%	1/10W
R1064	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1065	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R1066	1-216-103-00	METAL GLAZE	180K	5%	1/10W
R1067	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R1068	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R1069	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R1070	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1071	1-216-103-00	METAL GLAZE	180K	5%	1/10W
R1072	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R1073	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R1074	1-216-130-11	METAL GLAZE	2.4M	5%	1/10W
R1075	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R1076	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1078	1-216-049-00	METAL GLAZE	1K	5%	1/10W

SX2 **CR** **CG**

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1079	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1080	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
SX2-1	*1-568-710-11	POST, BASE 24P	

****

*A-1330-890-A CR BOARD, COMPLETE
****

PART NO.	DESCRIPTION
1-526-812-11	SOCKET, PICTURE TUBE
1-556-880-81	LEAD ASSY, HIGH-VOLTAGE
4-373-933-01	SHEET (TRANSISTOR), BN
4-382-854-01	SCREW (M3X8), P, SW (+)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C701	1-101-006-00	CERAMIC	0.047MF		50V	
C702	1-136-165-00	FILM	0.1MF	5%	50V	
C704 ⚠	1-123-948-51	ELECT	22MF	20%	250V	
C705	1-102-050-00	CERAMIC	0.01MF		500V	
C706	1-162-115-00	CERAMIC	330PF	10%	2KV	
C707	1-162-115-00	CERAMIC	330PF	10%	2KV	
C708	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C709	1-101-006-00	CERAMIC	0.047MF		50V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CR1	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CR2	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CR4	*1-564-508-11	PLUG, CONNECTOR 5P	
CR6	*1-564-509-11	PLUG, CONNECTOR 6P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D701	8-719-911-19	DIODE 1SS119	
D702	8-719-911-19	DIODE 1SS119	
D703	8-719-911-19	DIODE 1SS119	
D704	8-719-911-19	DIODE 1SS119	
D705	8-719-911-19	DIODE 1SS119	
D706	8-719-911-19	DIODE 1SS119	
D707	8-719-110-36	DIODE RD13ES-B2	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L701	1-408-159-00	COIL, SPOOK CHOKE 3.3UH		
L702	1-408-159-00	COIL, SPOOK CHOKE 3.3UH		
L704	1-408-413-00	INDUCTOR	22UH	

<NEON LAMP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
NL701	1-519-108-99	LAMP, NEON	
NL702	1-519-108-99	LAMP, NEON	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q701	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q702	8-729-255-12	TRANSISTOR 2SC2551-O	
Q703	8-729-200-17	TRANSISTOR 2SA1091-O	
Q704	8-729-200-17	TRANSISTOR 2SA1091-O	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R701	1-249-405-11	CARBON	100	5%	1/4W	F
R703 ⚠	1-249-405-91	CARBON	100	5%	1/4W	F
R704	1-215-927-00	METAL OXIDE	47K	5%	3W	F
R705	1-215-431-00	METAL	2.7K	1%	1/4W	
R706	1-216-510-11	METAL OXIDE	8.2K	5%	5W	F
	*4-341-751-01	EYELET; R706				
R707	1-247-700-11	CARBON	100	5%	1/4W	F
R708	1-202-561-00	SOLID	330	10%	1/2W	
R709	1-202-828-11	SOLID	6.8K	10%	1/2W	
R710	1-202-842-11	SOLID	220K	10%	1/2W	
R711	1-202-847-00	SOLID	560K	10%	1/2W	
R712	1-202-814-11	SOLID	33K	10%	1/2W	
R713 ⚠	1-249-421-91	CARBON	2.2K	5%	1/4W	F
R714	1-202-818-00	SOLID	1K	10%	1/2W	

<SPARK GAP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
SG701	1-519-063-99	DISCHARGING GAP	
SG702	1-519-063-99	DISCHARGING GAP	

****

*A-1330-956-A CG BOARD, COMPLETE
****

PART NO.	DESCRIPTION
1-526-812-11	SOCKET, PICTURE TUBE
1-556-880-81	LEAD ASSY, HIGH-VOLTAGE
4-373-933-01	SHEET (TRANSISTOR), BN
4-382-854-01	SCREW (M3X8), P, SW (+)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C721	1-101-006-00	CERAMIC	0.047MF		50V	
C722	1-136-165-00	FILM	0.1MF	5%	50V	
C724 ⚠	1-123-948-51	ELECT	22MF	20%	250V	
C725	1-102-050-00	CERAMIC	0.01MF		500V	
C726	1-162-115-00	CERAMIC	330PF	10%	2KV	
C727	1-162-115-00	CERAMIC	330PF	10%	2KV	
C728	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C729	1-101-006-00	CERAMIC	0.047MF		50V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CG1	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CG2	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CG4	*1-564-508-11	PLUG, CONNECTOR 5P	
CG6	*1-564-509-11	PLUG, CONNECTOR 6P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D721	8-719-911-19	DIODE 1SS119	
D722	8-719-911-19	DIODE 1SS119	
D723	8-719-911-19	DIODE 1SS119	
D724	8-719-911-19	DIODE 1SS119	
D725	8-719-911-19	DIODE 1SS119	
D726	8-719-911-19	DIODE 1SS119	
D727	8-719-110-36	DIODE RD13ES-B2	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L721	1-408-159-00	COIL, SPOOK CHOKE 3.3UH		
L722	1-408-159-00	COIL, SPOOK CHOKE 3.3UH		
L724	1-408-413-00	INDUCTOR	22UH	

<NEON LAMP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
NL721	1-519-108-99	LAMP, NEON	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
NL722	1-519-108-99	LAMP, NEON	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q721	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q722	8-729-255-12	TRANSISTOR 2SC2551-0	
Q723	8-729-200-17	TRANSISTOR 2SA1091-0	
Q724	8-729-200-17	TRANSISTOR 2SA1091-0	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R721	1-249-405-11	CARBON 100 5% 1/4W	F
R723 ⚠	1-249-405-91	CARBON 100 5% 1/4W	F
R724	1-215-927-00	METAL OXIDE 47K 5% 3W	F
R725	1-215-431-00	METAL 2.7K 1% 1/4W	
R726	1-216-510-11	METAL OXIDE 8.2K 5% 5W	F
	*4-341-751-01	EYELET; R726	
R727	1-247-700-11	CARBON 100 5% 1/4W	F
R728	1-202-561-00	SOLID 330 10% 1/2W	
R729	1-202-828-11	SOLID 6.8K 10% 1/2W	
R730	1-202-842-11	SOLID 220K 10% 1/2W	
R731	1-202-847-00	SOLID 560K 10% 1/2W	
R732	1-202-814-11	SOLID 33K 10% 1/2W	
R733 ⚠	1-249-421-91	CARBON 2.2K 5% 1/4W	F
R734	1-202-818-00	SOLID 1K 10% 1/2W	

<SPARK GAP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
SG721	1-519-063-99	DISCHARGING GAP	
SG722	1-519-063-99	DISCHARGING GAP	

****

*A-1330-957-A CB BOARD, COMPLETE
****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-526-812-11	SOCKET, PICTURE TUBE	
	1-556-880-81	LEAD ASSY, HIGH-VOLTAGE	
	4-373-933-01	SHEET (TRANSISTOR), BN	
	4-382-854-01	SCREW (M3X8), P, SW (+)	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
C741	1-101-006-00	CERAMIC 0.047MF 50V	
C742	1-136-165-00	FILM 0.1MF 5% 50V	
C744 ⚠	1-123-948-51	ELECT 22MF 20% 250V	
C745	1-102-050-00	CERAMIC 0.01MF 500V	
C746	1-162-115-00	CERAMIC 330PF 10% 2KV	
C747	1-162-115-00	CERAMIC 330PF 10% 2KV	
C748	1-130-479-00	MYLAR 0.0047MF 5% 50V	
C749	1-101-006-00	CERAMIC 0.047MF 50V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CB1	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CB2	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CB4	*1-564-508-11	PLUG, CONNECTOR 5P	
CB6	*1-564-509-11	PLUG, CONNECTOR 6P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D741	8-719-911-19	DIODE 1SS119	
D742	8-719-911-19	DIODE 1SS119	
D743	8-719-911-19	DIODE 1SS119	
D744	8-719-911-19	DIODE 1SS119	
D745	8-719-911-19	DIODE 1SS119	

REF.NO.	PART NO.	DESCRIPTION	REMARK
D746	8-719-911-19	DIODE 1SS119	
D747	8-719-110-36	DIODE RD13ES-B2	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L741	1-408-159-00	COIL, SPOOK CHOKE 3.3UH	
L742	1-408-159-00	COIL, SPOOK CHOKE 3.3UH	
L744	1-408-413-00	INDUCTOR 22UH	

<NEON LAMP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
NL741	1-519-108-99	LAMP, NEON	
NL742	1-519-108-99	LAMP, NEON	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q741	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q742	8-729-255-12	TRANSISTOR 2SC2551-0	
Q743	8-729-200-17	TRANSISTOR 2SA1091-0	
Q744	8-729-200-17	TRANSISTOR 2SA1091-0	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R741	1-249-405-11	CARBON 100 5% 1/4W	F
R743 ⚠	1-249-405-91	CARBON 100 5% 1/4W	F
R744	1-215-927-00	METAL OXIDE 47K 5% 3W	F
R745	1-215-431-00	METAL 2.7K 1% 1/4W	
R746	1-216-510-11	METAL OXIDE 8.2K 5% 5W	F
	*4-341-751-01	EYELET; R746	
R747	1-247-700-11	CARBON 100 5% 1/4W	F
R748	1-202-561-00	SOLID 330 10% 1/2W	
R749	1-202-828-11	SOLID 6.8K 10% 1/2W	
R750	1-202-842-11	SOLID 220K 10% 1/2W	
R751	1-202-847-00	SOLID 560K 10% 1/2W	
R752	1-202-814-11	SOLID 33K 10% 1/2W	
R753 ⚠	1-249-421-91	CARBON 2.2K 5% 1/4W	F
R754	1-202-818-00	SOLID 1K 10% 1/2W	

<SPARK GAP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
SG741	1-519-063-99	DISCHARGING GAP	
SG742	1-519-063-99	DISCHARGING GAP	

****

*A-1341-376-A D BOARD, COMPLETE
****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*4-341-751-01	EYELET	
	*4-381-904-01	SPRING (C)	
	4-382-854-01	SCREW (M3X8), P, SW (+)	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
C301	1-101-810-00	CERAMIC 100PF 5% 500V	
C303	1-124-046-00	ELECT 10MF 20% 160V	
C304	1-106-367-00	MYLAR 0.01MF 10% 200V	
C305	1-102-244-00	CERAMIC 220PF 10% 500V	
C306	1-106-367-00	MYLAR 0.01MF 10% 200V	
C307	1-101-810-00	CERAMIC 100PF 5% 500V	
C308	1-124-798-11	ELECT 1MF 20% 160V	
C309	1-124-477-11	ELECT 47MF 20% 16V	
C310	1-130-483-00	MYLAR 0.01MF 5% 50V	
C311	1-130-495-00	MYLAR 0.1MF 5% 50V	
C312	1-102-976-00	CERAMIC 180PF 5% 50V	
C313	1-102-980-00	CERAMIC 270PF 5% 50V	

D

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C314	1-130-475-00	MYLAR	0.0022MF	5%	50V
C315	1-124-477-11	ELECT	47MF	20%	16V
C316	1-124-120-11	ELECT	220MF	20%	16V
C318	1-123-935-00	ELECT	33MF	20%	160V
C320	1-102-824-00	CERAMIC	470PF	5%	50V
C321	1-101-361-00	CERAMIC	150PF	5%	50V
C322	1-102-973-00	CERAMIC	100PF	5%	50V
C330	1-101-361-00	CERAMIC	150PF	5%	50V
C331	1-102-978-00	CERAMIC	220PF	5%	50V
C332	1-102-978-00	CERAMIC	220PF	5%	50V
C401	1-124-907-11	ELECT	10MF	20%	50V
C402	1-124-799-11	ELECT	2.2MF	20%	160V
C403	1-130-483-00	MYLAR	0.01MF	5%	50V
C404	1-102-316-00	CERAMIC	15PF	5%	500V
C405	1-106-367-00	MYLAR	0.01MF	10%	200V
C406	1-130-483-00	MYLAR	0.01MF	5%	50V
C407	1-130-491-00	MYLAR	0.047MF	5%	50V
C408	1-130-491-00	MYLAR	0.047MF	5%	50V
C409	1-130-491-00	MYLAR	0.047MF	5%	50V
C410	1-130-483-00	MYLAR	0.01MF	5%	50V
C411	1-102-316-00	CERAMIC	15PF	5%	500V
C412	1-130-483-00	MYLAR	0.01MF	5%	50V
C413	1-106-367-00	MYLAR	0.01MF	10%	200V
C416	1-102-316-00	CERAMIC	15PF	5%	500V
C417	1-106-367-00	MYLAR	0.01MF	10%	200V
C4401	1-124-907-11	ELECT	10MF	20%	50V
C4402	1-124-907-11	ELECT	10MF	20%	50V
C4403	1-126-233-11	ELECT	22MF	20%	25V
C4404	1-126-233-11	ELECT	22MF	20%	25V
C4405	1-124-907-11	ELECT	10MF	20%	50V
C4406	1-124-907-11	ELECT	10MF	20%	50V
C4407	1-124-927-11	ELECT	4.7MF	20%	50V
C4408	1-124-927-11	ELECT	4.7MF	20%	50V
C4409	1-124-907-11	ELECT	10MF	20%	50V
C4410	1-126-101-11	ELECT	100MF	20%	16V
C4411	1-102-114-00	CERAMIC	470PF	10%	50V
C4412	1-102-116-00	CERAMIC	680PF	10%	50V
C4413	1-102-116-00	CERAMIC	680PF	10%	50V
C4414	1-124-907-11	ELECT	10MF	20%	50V
C4415	1-101-006-00	CERAMIC	0.047MF		50V
C4416	1-124-907-11	ELECT	10MF	20%	50V
C4417	1-124-120-11	ELECT	220MF	20%	16V
C4418	1-124-477-11	ELECT	47MF	20%	16V
C4419	1-124-477-11	ELECT	47MF	20%	16V
C4420	1-101-006-00	CERAMIC	0.047MF		50V
C4421	1-124-902-00	ELECT	0.47MF	20%	50V
C4422	1-101-006-00	CERAMIC	0.047MF		50V
C4426	1-126-101-11	ELECT	100MF	20%	16V
C4427	1-124-902-00	ELECT	0.47MF	20%	50V
C4428	1-102-074-00	CERAMIC	0.001MF	10%	50V
C4429	1-124-907-11	ELECT	10MF	20%	50V
C4601	1-102-978-00	CERAMIC	220PF	5%	50V
C4602	1-102-978-00	CERAMIC	220PF	5%	50V
C4603	1-102-978-00	CERAMIC	220PF	5%	50V
C4604	1-124-907-11	ELECT	10MF	20%	50V
C5001	1-124-499-11	ELECT	1MF	20%	50V
C5002	1-102-973-00	CERAMIC	100PF	5%	50V
C5003	1-130-483-00	MYLAR	0.01MF	5%	50V
C5004	1-131-341-00	TANTALUM	0.1MF	20%	35V
C5005	1-124-927-11	ELECT	4.7MF	20%	50V
C5006	1-124-907-11	ELECT	10MF	20%	50V
C5007	1-124-903-11	ELECT	1MF	20%	50V
C5008	1-124-903-11	ELECT	1MF	20%	50V
C5009	1-126-233-11	ELECT	22MF	20%	25V
C5010	1-126-101-11	ELECT	100MF	20%	16V
C5011	1-130-471-00	MYLAR	0.001MF	5%	50V
C5012	1-126-233-11	ELECT	22MF	20%	25V
C5013	1-126-101-11	ELECT	100MF	20%	16V
C5014	1-130-471-00	MYLAR	0.001MF	5%	50V
C5015	1-124-120-11	ELECT	220MF	20%	25V
C5016	1-124-120-11	ELECT	220MF	20%	25V
C5017	1-102-963-00	CERAMIC	33PF	5%	50V
C5018	1-102-963-00	CERAMIC	33PF	5%	50V
C5019	1-102-114-00	CERAMIC	470PF	10%	50V
C5020	1-102-114-00	CERAMIC	470PF	10%	50V
C5021	1-102-963-00	CERAMIC	33PF	5%	50V
C5022	1-102-963-00	CERAMIC	33PF	5%	50V
C5023	1-102-114-00	CERAMIC	470PF	10%	50V
C5024	1-102-114-00	CERAMIC	470PF	10%	50V
C5025	1-102-963-00	CERAMIC	33PF	5%	50V
C5026	1-102-963-00	CERAMIC	33PF	5%	50V
C5027	1-102-114-00	CERAMIC	470PF	10%	50V
C5028	1-102-114-00	CERAMIC	470PF	10%	50V
C5029	1-124-477-11	ELECT	47MF	20%	16V
C5030	1-130-471-00	MYLAR	0.001MF	5%	50V
C5031	1-130-471-00	MYLAR	0.001MF	5%	50V
C5032	1-124-477-11	ELECT	47MF	20%	16V
C5033	1-102-973-00	CERAMIC	100PF	5%	50V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
D1	*1-564-507-11	PLUG, CONNECTOR 4P
D2	*1-564-507-11	PLUG, CONNECTOR 4P
D3	*1-564-507-11	PLUG, CONNECTOR 4P
D4	*1-564-508-11	PLUG, CONNECTOR 5P
D5	*1-564-508-11	PLUG, CONNECTOR 5P
D6	*1-564-508-11	PLUG, CONNECTOR 5P
D7	*1-564-510-11	PLUG, CONNECTOR 7P
D8	*1-564-507-11	PLUG, CONNECTOR 4P
D9	*1-564-511-11	PLUG, CONNECTOR 8P
D10	*1-564-509-11	PLUG, CONNECTOR 6P
D11	*1-564-509-11	PLUG, CONNECTOR 6P
D12	*1-564-506-11	PLUG, CONNECTOR 3P
D13	*1-564-509-11	PLUG, CONNECTOR 6P
D14	*1-564-506-11	PLUG, CONNECTOR 3P
D15	*1-564-506-11	PLUG, CONNECTOR 3P
D16	*1-564-506-11	PLUG, CONNECTOR 3P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D301	8-719-110-88	DIODE RD39ES-B2
D302	8-719-110-88	DIODE RD39ES-B2
D303	8-719-911-19	DIODE 1SS119
D304	8-719-110-35	DIODE RD13ES-B1
D305 ⚠	8-719-110-30	DIODE RD12ES-B1
D306	8-719-911-19	DIODE 1SS119
D307	8-719-911-19	DIODE 1SS119
D308	8-719-911-19	DIODE 1SS119
D401	8-719-911-19	DIODE 1SS119
D402	8-719-911-19	DIODE 1SS119
D403	8-719-911-19	DIODE 1SS119
D404	8-719-911-19	DIODE 1SS119
D405	8-719-971-20	DIODE ERC38-06
D406	8-719-911-19	DIODE 1SS119
D407	8-719-911-19	DIODE 1SS119
D408	8-719-911-19	DIODE 1SS119
D4404	8-719-911-19	DIODE 1SS119

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
D4405	8-719-911-19	DIODE 1SS119	
D4406	8-719-911-19	DIODE 1SS119	
D4407	8-719-911-19	DIODE 1SS119	
D4408	8-719-911-19	DIODE 1SS119	
D4409	8-719-911-19	DIODE 1SS119	
D4410	8-719-911-19	DIODE 1SS119	
D4411	8-719-911-19	DIODE 1SS119	
D4412	8-719-911-19	DIODE 1SS119	
D4413	8-719-911-19	DIODE 1SS119	
D4414	8-719-911-19	DIODE 1SS119	
D4417	8-719-911-19	DIODE 1SS119	
D4418	8-719-911-19	DIODE 1SS119	
D4428	8-719-911-19	DIODE 1SS119	
D4429	8-719-911-19	DIODE 1SS119	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC401	8-759-945-58	IC RC4558P	
IC402	8-759-945-58	IC RC4558P	
IC4401	8-759-945-58	IC RC4558P	
IC4402	8-759-945-58	IC RC4558P	
IC5001	8-752-033-68	IC CXA1268P	
IC5002	8-759-982-21	IC RC78L05A	
IC5003	8-759-982-44	IC RC79L05A	
IC5004	8-759-602-19	IC M5220L	
IC5005	8-759-602-19	IC M5220L	
IC5006	8-759-602-19	IC M5220L	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L301	1-410-470-11	INDUCTOR 10UH	
L302	1-410-470-11	INDUCTOR 10UH	
L303	1-408-421-00	INDUCTOR 100UH	
L304	1-410-468-11	INDUCTOR 6.8UH	
L305	1-410-468-11	INDUCTOR 6.8UH	
L5001	1-459-155-00	COIL (WITH CORE) 45UH	
L5002	1-459-155-00	COIL (WITH CORE) 45UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q301 ⚠.	8-729-122-03	TRANSISTOR 2SA1220A-P	
Q302 ⚠.	8-729-106-93	TRANSISTOR 2SC2690A-P	
Q303	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q304	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q305	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q306	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q307	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q308	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q309 ⚠.	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q310	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q311	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q312 ⚠.	8-729-106-93	TRANSISTOR 2SC2690A-P	
Q313 ⚠.	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q401	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q402	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q403	8-729-238-32	TRANSISTOR 2SC2383-0	
Q404	8-729-231-60	TRANSISTOR 2SD1406-YGR	
Q405	8-729-111-67	TRANSISTOR 2SB1094-L	
Q406 ⚠.	8-729-238-32	TRANSISTOR 2SC2383-0	
Q407	8-729-231-60	TRANSISTOR 2SD1406-YGR	
Q408	8-729-111-67	TRANSISTOR 2SB1094-L	
Q409	8-729-238-32	TRANSISTOR 2SC2383-0	
Q410	8-729-231-60	TRANSISTOR 2SD1406-YGR	
Q411	8-729-111-67	TRANSISTOR 2SB1094-L	
Q4401	8-729-119-78	TRANSISTOR 2SC2785-HFE	

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q4402	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4403	8-729-801-46	TRANSISTOR 2SC3064-F	
Q4406	8-729-803-37	TRANSISTOR 2SA1237-F	
Q4408	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q4409	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4410	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4411	8-729-801-46	TRANSISTOR 2SC3064-F	
Q4413	8-729-803-37	TRANSISTOR 2SA1237-F	
Q4414	8-729-803-37	TRANSISTOR 2SA1237-F	
Q4416	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q4417	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4418	8-729-801-46	TRANSISTOR 2SC3064-F	
Q4420	8-729-803-37	TRANSISTOR 2SA1237-F	
Q4421	8-729-803-37	TRANSISTOR 2SA1237-F	
Q4423	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q4424	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4425	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q4426	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4427	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q4428	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4429	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q4430	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4431	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q4432	8-729-803-82	TRANSISTOR 2SC3468-E	
Q4433	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q4434	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q4435	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4436	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4437	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4438	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4439	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4440	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4441	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q4442	8-729-900-89	TRANSISTOR DTC144ES	
Q4450	8-729-803-37	TRANSISTOR 2SA1237-F	
Q4501	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q4502	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q5001	8-729-231-60	TRANSISTOR 2SD1406-YGR	
Q5002	8-729-111-67	TRANSISTOR 2SB1094-L	
Q5003	8-729-231-60	TRANSISTOR 2SD1406-YGR	
Q5004	8-729-111-67	TRANSISTOR 2SB1094-L	
Q5005	8-729-231-60	TRANSISTOR 2SD1406-YGR	
Q5006	8-729-111-67	TRANSISTOR 2SB1094-L	
Q5007	8-729-231-60	TRANSISTOR 2SD1406-YGR	
Q5008	8-729-111-67	TRANSISTOR 2SB1094-L	
Q5009	8-729-231-60	TRANSISTOR 2SD1406-YGR	
Q5010	8-729-111-67	TRANSISTOR 2SB1094-L	
Q5011	8-729-231-60	TRANSISTOR 2SD1406-YGR	
Q5012	8-729-111-67	TRANSISTOR 2SB1094-L	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R301 ⚠.	1-249-417-91	CARBON 1K 5% 1/4W	F
R302 ⚠.	1-249-393-91	CARBON 10 5% 1/4W	F
R303	1-249-405-11	CARBON 100 5% 1/4W	
R304	1-249-439-11	CARBON 68K 5% 1/4W	
R305	1-249-429-11	CARBON 10K 5% 1/4W	
R306	1-249-439-11	CARBON 68K 5% 1/4W	
R307	1-249-405-11	CARBON 100 5% 1/4W	
R308	1-249-417-11	CARBON 1K 5% 1/4W	F

D

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R309	1-249-393-11	CARBON	10	5%	1/4W	F
R310	1-215-915-11	METAL OXIDE	470	5%	3W	F
R311	1-249-417-11	CARBON	1K	5%	1/4W	
R312	1-249-417-11	CARBON	1K	5%	1/4W	
R313	1-249-424-11	CARBON	3.9K	5%	1/4W	
R314	1-249-434-11	CARBON	27K	5%	1/4W	
R315	1-249-409-11	CARBON	220	5%	1/4W	
R316	1-249-422-11	CARBON	2.7K	5%	1/4W	
R317	1-249-414-11	CARBON	560	5%	1/4W	
R318	1-249-416-11	CARBON	820	5%	1/4W	
R319	1-249-409-11	CARBON	220	5%	1/4W	
R320	1-249-409-11	CARBON	220	5%	1/4W	
R321	1-249-409-11	CARBON	220	5%	1/4W	
R322	1-249-441-11	CARBON	100K	5%	1/4W	
R323	1-249-430-11	CARBON	12K	5%	1/4W	
R324	1-249-429-11	CARBON	10K	5%	1/4W	
R325	1-249-416-11	CARBON	820	5%	1/4W	
R326 ⚠	1-249-393-91	CARBON	10	5%	1/4W	F
R327	1-249-409-11	CARBON	220	5%	1/4W	
R328	1-249-393-11	CARBON	10	5%	1/4W	F
R329	1-249-425-11	CARBON	4.7K	5%	1/4W	
R330	1-216-429-00	METAL OXIDE	270	5%	1W	F
R331	1-216-440-00	METAL OXIDE	18K	5%	1W	F
R332 ⚠	1-215-915-51	METAL OXIDE	470	5%	3W	F
R333	1-215-877-11	METAL OXIDE	22K	5%	1W	F
R334	1-249-392-11	CARBON	8.2	5%	1/4W	F
R336	1-249-429-11	CARBON	10K	5%	1/4W	
R340	1-247-717-11	CARBON	2.2K	5%	1/4W	
R341	1-247-713-11	CARBON	1K	5%	1/4W	
R342	1-249-429-11	CARBON	10K	5%	1/4W	
R401	1-249-433-11	CARBON	22K	5%	1/4W	
R402	1-249-441-11	CARBON	100K	5%	1/4W	
R404	1-249-433-11	CARBON	22K	5%	1/4W	
R405	1-249-429-11	CARBON	10K	5%	1/4W	
R406	1-249-433-11	CARBON	22K	5%	1/4W	
R407	1-249-429-11	CARBON	10K	5%	1/4W	
R408	1-249-423-11	CARBON	3.3K	5%	1/4W	
R409	1-249-423-11	CARBON	3.3K	5%	1/4W	
R410	1-249-405-11	CARBON	100	5%	1/4W	F
R411	1-205-941-11	WIREWOUND	8.2K	10%	7W	
R412	1-216-512-11	METAL OXIDE	18K	5%	5W	F
R413	1-215-445-00	METAL	10K	1%	1/4W	
R414	1-215-418-00	METAL	750	1%	1/4W	
R415	1-249-393-11	CARBON	10	5%	1/4W	F
R416	1-215-875-11	METAL OXIDE	10K	5%	1W	F
R417	1-249-405-11	CARBON	100	5%	1/4W	F
R418	1-249-429-11	CARBON	10K	5%	1/4W	
R419	1-215-441-00	METAL	6.8K	1%	1/4W	
R420	1-215-453-00	METAL	22K	1%	1/4W	
R421	1-215-461-00	METAL	47K	1%	1/4W	
R422	1-215-425-00	METAL	1.5K	1%	1/4W	
R423	1-215-441-00	METAL	6.8K	1%	1/4W	
R424	1-215-425-00	METAL	1.5K	1%	1/4W	
R425	1-215-425-00	METAL	1.5K	1%	1/4W	
R426 ⚠	1-249-405-91	CARBON	100	5%	1/4W	F
R427	1-216-512-11	METAL OXIDE	18K	5%	5W	F
R428	1-215-445-00	METAL	10K	1%	1/4W	
R429	1-215-418-00	METAL	750	1%	1/4W	
R430 ⚠	1-249-393-91	CARBON	10	5%	1/4W	F
R431 ⚠	1-249-405-91	CARBON	100	5%	1/4W	F
R432	1-249-429-11	CARBON	10K	5%	1/4W	
R433	1-215-441-00	METAL	6.8K	1%	1/4W	
R434	1-249-429-11	CARBON	10K	5%	1/4W	
R435	1-215-441-00	METAL	6.8K	1%	1/4W	
R436	1-215-875-11	METAL OXIDE	10K	5%	1W	F
R438	1-216-512-11	METAL OXIDE	18K	5%	5W	F
R439	1-215-445-00	METAL	10K	1%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R440	1-215-418-00	METAL	750	1%	1/4W	
R441	1-249-393-11	CARBON	10	5%	1/4W	F
R442	1-215-875-11	METAL OXIDE	10K	5%	1W	F
R443	1-249-480-11	CARBON	3.3	5%	1/2W	
R444	1-249-480-11	CARBON	3.3	5%	1/2W	
R449	1-249-480-11	CARBON	3.3	5%	1/2W	
R450	1-249-480-11	CARBON	3.3	5%	1/2W	
R451	1-205-941-11	WIREWOUND	8.2K	10%	7W	
R455	1-249-480-11	CARBON	3.3	5%	1/2W	
R456	1-249-480-11	CARBON	3.3	5%	1/2W	
R4401	1-249-437-11	CARBON	47K	5%	1/4W	
R4402	1-249-423-11	CARBON	3.3K	5%	1/4W	
R4403	1-249-429-11	CARBON	10K	5%	1/4W	
R4404	1-249-429-11	CARBON	10K	5%	1/4W	
R4405	1-249-425-11	CARBON	4.7K	5%	1/4W	
R4406	1-249-425-11	CARBON	4.7K	5%	1/4W	
R4407	1-249-423-11	CARBON	3.3K	5%	1/4W	
R4408	1-249-425-11	CARBON	4.7K	5%	1/4W	
R4409	1-249-409-11	CARBON	220	5%	1/4W	
R4410	1-249-409-11	CARBON	220	5%	1/4W	
R4411	1-249-429-11	CARBON	10K	5%	1/4W	
R4412	1-249-409-11	CARBON	220	5%	1/4W	
R4413	1-249-425-11	CARBON	4.7K	5%	1/4W	
R4414	1-249-414-11	CARBON	560	5%	1/4W	
R4415	1-249-411-11	CARBON	330	5%	1/4W	
R4416	1-249-423-11	CARBON	3.3K	5%	1/4W	
R4417	1-249-429-11	CARBON	10K	5%	1/4W	
R4418	1-249-423-11	CARBON	3.3K	5%	1/4W	
R4419	1-249-417-11	CARBON	1K	5%	1/4W	
R4420	1-249-417-11	CARBON	1K	5%	1/4W	
R4421	1-249-429-11	CARBON	10K	5%	1/4W	
R4422	1-249-429-11	CARBON	10K	5%	1/4W	
R4423	1-249-417-11	CARBON	1K	5%	1/4W	
R4424	1-249-417-11	CARBON	1K	5%	1/4W	
R4425	1-249-417-11	CARBON	1K	5%	1/4W	
R4426	1-249-417-11	CARBON	1K	5%	1/4W	
R4427	1-249-417-11	CARBON	1K	5%	1/4W	
R4428	1-249-409-11	CARBON	220	5%	1/4W	
R4429	1-249-409-11	CARBON	220	5%	1/4W	
R4430	1-249-409-11	CARBON	220	5%	1/4W	
R4431	1-249-414-11	CARBON	560	5%	1/4W	
R4432	1-249-425-11	CARBON	4.7K	5%	1/4W	
R4433	1-249-411-11	CARBON	330	5%	1/4W	
R4434	1-249-409-11	CARBON	220	5%	1/4W	
R4435	1-249-409-11	CARBON	220	5%	1/4W	
R4436	1-249-409-11	CARBON	220	5%	1/4W	
R4437	1-249-414-11	CARBON	560	5%	1/4W	
R4438	1-249-425-11	CARBON	4.7K	5%	1/4W	
R4439	1-249-411-11	CARBON	330	5%	1/4W	
R4440	1-249-405-11	CARBON	100	5%	1/4W	
R4441	1-215-449-00	METAL	15K	1%	1/4W	
R4442	1-249-425-11	CARBON	4.7K	5%	1/4W	
R4443	1-249-405-11	CARBON	100	5%	1/4W	
R4444	1-249-401-11	CARBON	47	5%	1/4W	
R4445	1-215-413-00	METAL	470	1%	1/4W	
R4446	1-249-397-11	CARBON	22	5%	1/4W	
R4447	1-249-409-11	CARBON	220	5%	1/4W	
R4448	1-249-405-11	CARBON	100	5%	1/4W	
R4449	1-215-425-00	METAL	1.5K	1%	1/4W	
R4450	1-249-425-11	CARBON	4.7K	5%	1/4W	
R4451	1-249-405-11	CARBON	100	5%	1/4W	
R4452	1-215-413-00	METAL	470	1%	1/4W	
R4453	1-249-397-11	CARBON	22	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R4454	1-249-401-11	CARBON	47	5%	1/4W	
R4455	1-215-405-00	METAL	220	1%	1/4W	
R4456	1-249-426-11	CARBON	5.6K	5%	1/4W	
R4457	1-215-461-00	METAL	47K	1%	1/4W	
R4471	1-249-437-11	CARBON	47K	5%	1/4W	
R4472	1-249-437-11	CARBON	47K	5%	1/4W	
R4473	1-215-469-00	METAL	100K	1%	1/4W	
R4474	1-215-461-00	METAL	47K	1%	1/4W	
R4475	1-215-469-00	METAL	100K	1%	1/4W	
R4476	1-215-461-00	METAL	47K	1%	1/4W	
R4477	1-215-469-00	METAL	100K	1%	1/4W	
R4478	1-215-461-00	METAL	47K	1%	1/4W	
R4479	1-215-469-00	METAL	100K	1%	1/4W	
R4480	1-249-419-11	CARBON	1.5K	5%	1/4W	
R4481	1-249-405-11	CARBON	100	5%	1/4W	
R4482	1-249-419-11	CARBON	1.5K	5%	1/4W	
R4483	1-215-449-00	METAL	15K	1%	1/4W	
R4484	1-215-453-00	METAL	22K	1%	1/4W	
R4485	1-215-445-00	METAL	10K	1%	1/4W	
R4486	1-249-432-11	CARBON	18K	5%	1/4W	
R4487	1-215-431-00	METAL	2.7K	1%	1/4W	
R4488	1-215-443-00	METAL	8.2K	1%	1/4W	
R4489	1-215-443-00	METAL	8.2K	1%	1/4W	
R4490	1-215-443-00	METAL	8.2K	1%	1/4W	
R4491	1-249-429-11	CARBON	10K	5%	1/4W	
R4492	1-247-887-00	CARBON	220K	5%	1/4W	
R4493	1-247-887-00	CARBON	220K	5%	1/4W	
R4494	1-247-887-00	CARBON	220K	5%	1/4W	
R4495	1-215-477-00	METAL	220K	1%	1/4W	
R4496	1-215-469-00	METAL	100K	1%	1/4W	
R4497	1-249-429-11	CARBON	10K	5%	1/4W	
R4499	1-249-405-11	CARBON	100	5%	1/4W	
R4500	1-249-441-11	CARBON	100K	5%	1/4W	
R4501	1-249-417-11	CARBON	1K	5%	1/4W	
R4502	1-249-414-11	CARBON	560	5%	1/4W	
R4510	1-215-407-00	METAL	270	1%	1/4W	
R4556	1-249-405-11	CARBON	100	5%	1/4W	
R4557	1-215-425-00	METAL	1.5K	1%	1/4W	
R4558	1-249-425-11	CARBON	4.7K	5%	1/4W	
R4559	1-249-405-11	CARBON	100	5%	1/4W	
R4560	1-249-401-11	CARBON	47	5%	1/4W	
R4561	1-215-413-00	METAL	470	1%	1/4W	
R4562	1-249-397-11	CARBON	22	5%	1/4W	
R4564	1-249-429-11	CARBON	10K	5%	1/4W	
R4565	1-215-449-00	METAL	15K	1%	1/4W	
R4566	1-215-443-00	METAL	8.2K	1%	1/4W	
R4567	1-215-429-00	METAL	2.2K	1%	1/4W	
R4568	1-215-469-00	METAL	100K	1%	1/4W	
R4569	1-249-409-11	CARBON	220	5%	1/4W	
R4570	1-249-393-11	CARBON	10	5%	1/4W	
R4572	1-249-429-11	CARBON	10K	5%	1/4W	
R4574	1-247-895-00	CARBON	470K	5%	1/4W	
R4575	1-215-449-00	METAL	15K	1%	1/4W	
R4577	1-215-435-00	METAL	3.9K	1%	1/4W	
R4578	1-249-431-11	CARBON	15K	5%	1/4W	
R4579	1-249-429-11	CARBON	10K	5%	1/4W	
R4598	1-215-401-11	METAL	150	1%	1/4W	
R4599	1-215-411-00	METAL	390	1%	1/4W	
R4610	1-249-417-11	CARBON	1K	5%	1/4W	
R4611	1-249-424-11	CARBON	3.9K	5%	1/4W	
R4612	1-249-421-11	CARBON	2.2K	5%	1/4W	
R4613	1-249-421-11	CARBON	2.2K	5%	1/4W	
R4614	1-249-417-11	CARBON	1K	5%	1/4W	
R4616	1-249-426-11	CARBON	5.6K	5%	1/4W	
R4617	1-249-427-11	CARBON	6.8K	5%	1/4W	
R4618	1-249-417-11	CARBON	1K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R4619	1-249-417-11	CARBON	1K	5%	1/4W	
R4621	1-249-416-11	CARBON	820	5%	1/4W	
R4622	1-249-419-11	CARBON	1.5K	5%	1/4W	
R4623	1-249-409-11	CARBON	220	5%	1/4W	
R5001	1-215-455-00	METAL	27K	1%	1/4W	
R5002	1-215-457-00	METAL	33K	1%	1/4W	
R5003	1-215-455-00	METAL	27K	1%	1/4W	
R5004	1-215-469-00	METAL	100K	1%	1/4W	
R5005	1-215-469-00	METAL	100K	1%	1/4W	
R5006	1-215-469-00	METAL	100K	1%	1/4W	
R5007	1-249-420-11	CARBON	1.8K	5%	1/4W	
R5008	1-215-441-00	METAL	6.8K	1%	1/4W	
R5009	1-215-427-00	METAL	1.8K	1%	1/4W	
R5010	1-215-453-00	METAL	22K	1%	1/4W	
R5011	1-215-439-00	METAL	5.6K	1%	1/4W	
R5012	1-215-453-00	METAL	22K	1%	1/4W	
R5013	1-249-421-11	CARBON	2.2K	5%	1/4W	
R5014	1-215-451-00	METAL	18K	1%	1/4W	
R5015	1-249-421-11	CARBON	2.2K	5%	1/4W	
R5016	1-249-441-11	CARBON	100K	5%	1/4W	
R5017	1-247-897-11	CARBON	560K	5%	1/4W	
R5018	1-249-441-11	CARBON	100K	5%	1/4W	
R5019	1-249-423-11	CARBON	3.3K	5%	1/4W	
R5020	1-249-423-11	CARBON	3.3K	5%	1/4W	
R5021	1-249-423-11	CARBON	3.3K	5%	1/4W	
R5022	1-249-423-11	CARBON	3.3K	5%	1/4W	
R5023	1-249-423-11	CARBON	3.3K	5%	1/4W	
R5024	1-249-423-11	CARBON	3.3K	5%	1/4W	
R5025	1-215-439-00	METAL	5.6K	1%	1/4W	
R5026	1-215-459-00	METAL	39K	1%	1/4W	
R5027	1-215-439-00	METAL	5.6K	1%	1/4W	
R5028	1-215-421-00	METAL	1K	1%	1/4W	
R5029	1-215-429-00	METAL	2.2K	1%	1/4W	
R5030	1-249-427-11	CARBON	6.8K	5%	1/4W	
R5031	1-249-432-11	CARBON	18K	5%	1/4W	
R5032	1-249-427-11	CARBON	6.8K	5%	1/4W	
R5033	1-249-429-11	CARBON	10K	5%	1/4W	
R5034	1-249-429-11	CARBON	10K	5%	1/4W	
R5035	1-249-429-11	CARBON	10K	5%	1/4W	
R5036	1-215-439-00	METAL	5.6K	1%	1/4W	
R5037	1-215-455-00	METAL	27K	1%	1/4W	
R5038	1-215-439-00	METAL	5.6K	1%	1/4W	
R5039	1-215-423-00	METAL	1.2K	1%	1/4W	
R5040	1-215-409-00	METAL	330	1%	1/4W	
R5041	1-215-423-00	METAL	1.2K	1%	1/4W	
R5042	1-249-426-11	CARBON	5.6K	5%	1/4W	
R5043	1-249-426-11	CARBON	5.6K	5%	1/4W	
R5044	1-249-424-11	CARBON	3.9K	5%	1/4W	
R5045	1-249-425-11	CARBON	4.7K	5%	1/4W	
R5046	1-249-427-11	CARBON	6.8K	5%	1/4W	
R5047	1-249-425-11	CARBON	4.7K	5%	1/4W	
R5048	1-249-426-11	CARBON	5.6K	5%	1/4W	
R5049	1-249-426-11	CARBON	5.6K	5%	1/4W	
R5050	1-249-426-11	CARBON	5.6K	5%	1/4W	
R5051	1-249-427-11	CARBON	6.8K	5%	1/4W	
R5052	1-249-427-11	CARBON	6.8K	5%	1/4W	
R5053	1-249-427-11	CARBON	6.8K	5%	1/4W	
R5054	1-215-453-00	METAL	22K	1%	1/4W	
R5055	1-215-453-00	METAL	22K	1%	1/4W	
R5057	1-215-467-00	METAL	82K	1%	1/4W	
R5058	1-215-433-00	METAL	3.3K	1%	1/4W	
R5059	1-249-437-11	CARBON	47K	5%	1/4W	
R5060	1-249-437-11	CARBON	47K	5%	1/4W	

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R5061	1-247-891-00	CARBON	330K	5%	1/4W	
R5062	1-247-891-00	CARBON	330K	5%	1/4W	
R5063	1-215-421-00	METAL	1K	1%	1/4W	
R5064	1-215-437-00	METAL	4.7K	1%	1/4W	
R5065	1-215-469-00	METAL	100K	1%	1/4W	
R5066	1-215-399-00	METAL	120	1%	1/4W	
R5067	1-215-399-00	METAL	120	1%	1/4W	
R5068	1-215-399-00	METAL	120	1%	1/4W	
R5069	1-215-399-00	METAL	120	1%	1/4W	
R5070	1-215-399-00	METAL	120	1%	1/4W	
R5071	1-215-399-00	METAL	120	1%	1/4W	
R5072	1-215-399-00	METAL	120	1%	1/4W	
R5073	1-215-399-00	METAL	120	1%	1/4W	
R5074	1-215-399-00	METAL	120	1%	1/4W	
R5075	1-215-399-00	METAL	120	1%	1/4W	
R5076	1-215-399-00	METAL	120	1%	1/4W	
R5077	1-215-399-00	METAL	120	1%	1/4W	
R5078	1-215-421-00	METAL	1K	1%	1/4W	
R5079	1-215-421-00	METAL	1K	1%	1/4W	
R5080	1-249-405-11	CARBON	100	5%	1/4W	
R5081	1-249-405-11	CARBON	100	5%	1/4W	
R5082	1-249-405-11	CARBON	100	5%	1/4W	
R5083	1-249-405-11	CARBON	100	5%	1/4W	
R5084	1-215-421-00	METAL	1K	1%	1/4W	
R5085	1-215-421-00	METAL	1K	1%	1/4W	
R5086	1-247-736-11	CARBON	56	5%	1/2W	
R5087	1-247-736-11	CARBON	56	5%	1/2W	
R5088	1-214-792-00	METAL	1	1%	1/2W	
R5089	1-214-792-00	METAL	1	1%	1/2W	
R5090	1-215-421-00	METAL	1K	1%	1/4W	
R5091	1-215-421-00	METAL	1K	1%	1/4W	
R5092	1-249-405-11	CARBON	100	5%	1/4W	
R5093	1-249-405-11	CARBON	100	5%	1/4W	
R5094	1-249-405-11	CARBON	100	5%	1/4W	
R5095	1-249-405-11	CARBON	100	5%	1/4W	
R5096	1-215-421-00	METAL	1K	1%	1/4W	
R5097	1-215-421-00	METAL	1K	1%	1/4W	
R5098	1-247-736-11	CARBON	56	5%	1/2W	
R5099	1-247-736-11	CARBON	56	5%	1/2W	
R5100	1-214-792-00	METAL	1	1%	1/2W	
R5101	1-214-792-00	METAL	1	1%	1/2W	
R5102	1-215-421-00	METAL	1K	1%	1/4W	
R5103	1-215-421-00	METAL	1K	1%	1/4W	
R5104	1-249-405-11	CARBON	100	5%	1/4W	
R5105	1-249-405-11	CARBON	100	5%	1/4W	
R5106	1-249-405-11	CARBON	100	5%	1/4W	
R5107	1-249-405-11	CARBON	100	5%	1/4W	
R5108	1-215-421-00	METAL	1K	1%	1/4W	
R5109	1-215-421-00	METAL	1K	1%	1/4W	
R5110	1-247-736-11	CARBON	56	5%	1/2W	
R5111	1-247-736-11	CARBON	56	5%	1/2W	
R5112	1-214-792-00	METAL	1	1%	1/2W	
R5113	1-214-792-00	METAL	1	1%	1/2W	
R5114⚠	1-216-475-51	METAL OXIDE	120	5%	3W	F
R5115⚠	1-216-475-51	METAL OXIDE	120	5%	3W	F
R5116	1-249-421-11	CARBON	2.2K	5%	1/4W	
R5119	1-249-421-11	CARBON	2.2K	5%	1/4W	
R5120	1-249-429-11	CARBON	10K	5%	1/4W	
R5121	1-249-429-11	CARBON	10K	5%	1/4W	
R5131	1-249-434-11	CARBON	27K	5%	1/4W	
R5132	1-249-438-11	CARBON	56K	5%	1/4W	
R5140	1-249-405-11	CARBON	100	5%	1/4W	
R5141	1-249-424-11	CARBON	3.9K	5%	1/4W	
R5142	1-249-424-11	CARBON	3.9K	5%	1/4W	
R5143	1-249-405-11	CARBON	100	5%	1/4W	
R5144	1-249-424-11	CARBON	3.9K	5%	1/4W	
R5145	1-249-424-11	CARBON	3.9K	5%	1/4W	
R5146	1-249-405-11	CARBON	100	5%	1/4W	
R5147	1-249-424-11	CARBON	3.9K	5%	1/4W	
R5148	1-249-424-11	CARBON	3.9K	5%	1/4W	
R5151	1-249-447-11	CARBON	1	5%	1/4W	F
R5152	1-249-444-11	CARBON	0.56	5%	1/4W	F

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV4407	1-238-015-11	RES, ADJ, CARBON 4.7K	
RV4408	1-238-015-11	RES, ADJ, CARBON 4.7K	
RV4409	1-238-015-11	RES, ADJ, CARBON 4.7K	
RV4410	1-238-011-11	RES, ADJ, CARBON 470	
RV4411	1-238-732-21	RES, ADJ, CARBON 100	
RV4412	1-238-011-11	RES, ADJ, CARBON 470	
RV4501	1-238-012-11	RES, ADJ, CARBON 1K	
RV5001	1-238-017-11	RES, ADJ, CARBON 22K	
RV5002	1-238-017-11	RES, ADJ, CARBON 22K	
RV5003	1-238-017-11	RES, ADJ, CARBON 22K	
RV5004	1-238-017-11	RES, ADJ, CARBON 22K	
RV5005	1-238-017-11	RES, ADJ, CARBON 22K	
RV5006	1-238-017-11	RES, ADJ, CARBON 22K	
RV5007	1-238-017-11	RES, ADJ, CARBON 22K	
RV5008	1-238-017-11	RES, ADJ, CARBON 22K	
RV5009	1-238-017-11	RES, ADJ, CARBON 22K	
RV5010	1-238-017-11	RES, ADJ, CARBON 22K	
RV5011	1-238-014-11	RES, ADJ, CARBON 3.3K	
RV5012	1-238-017-11	RES, ADJ, CARBON 22K	
RV5013	1-238-016-11	RES, ADJ, CARBON 10K	
RV5014	1-238-017-11	RES, ADJ, CARBON 22K	
RV5015	1-238-016-11	RES, ADJ, CARBON 10K	
RV5016	1-238-017-11	RES, ADJ, CARBON 22K	
RV5017	1-238-023-11	RES, ADJ, CARBON 470K	
RV5018	1-238-017-11	RES, ADJ, CARBON 22K	
RV5019	1-238-017-11	RES, ADJ, CARBON 22K	
RV5020	1-238-017-11	RES, ADJ, CARBON 22K	
RV5021	1-238-017-11	RES, ADJ, CARBON 22K	
RV5022	1-238-017-11	RES, ADJ, CARBON 22K	
RV5023	1-238-017-11	RES, ADJ, CARBON 22K	
RV5024	1-238-017-11	RES, ADJ, CARBON 22K	
RV5025	1-238-017-11	RES, ADJ, CARBON 22K	
RV5026	1-238-018-11	RES, ADJ, CARBON 33K	
RV5027	1-238-017-11	RES, ADJ, CARBON 22K	
RV5028	1-238-014-11	RES, ADJ, CARBON 3.3K	
RV5029	1-238-015-11	RES, ADJ, CARBON 4.7K	
RV5030	1-238-017-11	RES, ADJ, CARBON 22K	
RV5031	1-238-017-11	RES, ADJ, CARBON 22K	
RV5032	1-238-017-11	RES, ADJ, CARBON 22K	
RV5033	1-238-017-11	RES, ADJ, CARBON 22K	
RV5034	1-238-017-11	RES, ADJ, CARBON 22K	
RV5035	1-238-017-11	RES, ADJ, CARBON 22K	
RV5036	1-238-017-11	RES, ADJ, CARBON 22K	
RV5037	1-238-019-11	RES, ADJ, CARBON 47K	
RV5038	1-238-017-11	RES, ADJ, CARBON 22K	
RV5039	1-238-016-11	RES, ADJ, CARBON 10K	
RV5040	1-238-014-11	RES, ADJ, CARBON 3.3K	
RV5041	1-238-016-11	RES, ADJ, CARBON 10K	
RV5042	1-238-017-11	RES, ADJ, CARBON 22K	
RV5043	1-238-017-11	RES, ADJ, CARBON 22K	
RV5044	1-238-017-11	RES, ADJ, CARBON 22K	
RV5045	1-238-017-11	RES, ADJ, CARBON 22K	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV5046	1-238-017-11	RES, ADJ, CARBON 22K	
RV5047	1-238-017-11	RES, ADJ, CARBON 22K	
RV5048	1-238-017-11	RES, ADJ, CARBON 22K	
RV5049	1-238-017-11	RES, ADJ, CARBON 22K	
RV5050	1-238-017-11	RES, ADJ, CARBON 22K	
RV5051	1-238-017-11	RES, ADJ, CARBON 22K	
RV5052	1-238-017-11	RES, ADJ, CARBON 22K	
RV5053	1-238-017-11	RES, ADJ, CARBON 22K	
RV5058	1-238-017-11	RES, ADJ, CARBON 22K	

<SWITCH>

REF.NO.	PART NO.	DESCRIPTION	REMARK
S5001	1-570-865-11	SWITCH, SLIDE	

****

*A-1371-737-A H BOARD, COMPLETE
****

*4-374-421-01 HOLDER (A), LED
*4-374-987-01 GUIDE, LIGHT
*4-381-686-01 BRACKET (B), LIGHT GUIDE

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C1001	1-102-110-00	CERAMIC	220PF	10%	50V
C1002	1-102-110-00	CERAMIC	220PF	10%	50V
C1003	1-130-483-00	MYLAR	0.01MF	5%	50V
C1004	1-130-483-00	MYLAR	0.01MF	5%	50V
C1005	1-130-483-00	MYLAR	0.01MF	5%	50V
C1006	1-131-381-00	TANTALUM	47MF	10%	10V
C1007	1-131-343-00	TANTALUM	0.22MF	10%	35V
C1008	1-124-589-11	ELECT	47MF	20%	10V
C1009	1-124-589-11	ELECT	47MF	20%	10V
C1010	1-102-973-00	CERAMIC	100PF	5%	50V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D1001	8-719-911-19	DIODE 1SS119
D1002	8-719-109-68	DIODE RD3.6ES-B1
D1003	8-719-911-19	DIODE 1SS119
D1004	8-719-911-19	DIODE 1SS119
D1005	8-719-915-45	DIODE SLP162B
D1006	8-719-911-19	DIODE 1SS119
D1007	8-719-911-19	DIODE 1SS119
D1008	8-719-911-19	DIODE 1SS119
D1009	8-719-911-19	DIODE 1SS119

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
H1	*1-564-522-11	PLUG, CONNECTOR 7P
H2	*1-564-521-11	PLUG, CONNECTOR 6P
H3	*1-564-524-11	PLUG, CONNECTOR 9P

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC1001	*8-759-630-17	IC M50461-064SP
IC1002	8-741-148-33	IC SBX1483-59

<JACK>

REF.NO.	PART NO.	DESCRIPTION
J1001	1-563-303-11	JACK BLOCK, PIN 3P

<COIL>

REF.NO.	PART NO.	DESCRIPTION	
L1002	1-408-421-00	INDUCTOR	100UH

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1001	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1002	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1003	8-729-900-61	TRANSISTOR DTA114ES	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			
R1001	1-249-425-11	CARBON	4.7K	5%	1/4W
R1002	1-249-418-11	CARBON	1.2K	5%	1/4W
R1003	1-249-417-11	CARBON	1K	5%	1/4W
R1004	1-249-441-11	CARBON	100K	5%	1/4W
R1005	1-249-421-11	CARBON	2.2K	5%	1/4W
R1006	1-249-429-11	CARBON	10K	5%	1/4W
R1007	1-249-441-11	CARBON	100K	5%	1/4W
R1008	1-249-417-11	CARBON	1K	5%	1/4W
R1009	1-249-417-11	CARBON	1K	5%	1/4W
R1010	1-249-417-11	CARBON	1K	5%	1/4W
R1011	1-249-417-11	CARBON	1K	5%	1/4W
R1012	1-249-417-11	CARBON	1K	5%	1/4W
R1013	1-249-417-11	CARBON	1K	5%	1/4W
R1014	1-249-417-11	CARBON	1K	5%	1/4W
R1015	1-249-417-11	CARBON	1K	5%	1/4W
R1016	1-249-417-11	CARBON	1K	5%	1/4W
R1017	1-249-417-11	CARBON	1K	5%	1/4W
R1018	1-249-417-11	CARBON	1K	5%	1/4W
R1019	1-249-417-11	CARBON	1K	5%	1/4W
R1020	1-249-417-11	CARBON	1K	5%	1/4W
R1021	1-249-415-11	CARBON	680	5%	1/4W
R1022	1-249-405-11	CARBON	100	5%	1/4W

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION
RV1001	1-237-994-11	RES, VAR, CARBON 20K
RV1002	1-237-994-11	RES, VAR, CARBON 20K
RV1003	1-237-994-11	RES, VAR, CARBON 20K
RV1004	1-237-994-11	RES, VAR, CARBON 20K

<SWITCH>

REF.NO.	PART NO.	DESCRIPTION
S1001	⚠1-554-936-11	SWITCH, KEY BOARD (POWER)
S1002	1-554-303-21	SWITCH, KEY BOARD
S1003	1-554-303-21	SWITCH, KEY BOARD
S1004	1-554-303-21	SWITCH, KEY BOARD
S1005	1-554-303-21	SWITCH, KEY BOARD
S1006	1-554-303-21	SWITCH, KEY BOARD
S1007	1-554-303-21	SWITCH, KEY BOARD
S1008	1-554-303-21	SWITCH, KEY BOARD
S1009	1-554-303-21	SWITCH, KEY BOARD
S1010	1-554-303-21	SWITCH, KEY BOARD
S1011	1-554-303-21	SWITCH, KEY BOARD
S1012	1-570-865-11	SWITCH, SLIDE
S1013	1-570-865-11	SWITCH, SLIDE
S1014	1-570-865-11	SWITCH, SLIDE

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION
X1001	1-527-476-00	OSCILLATOR, CERAMIC

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XR XG XB YR YG YB PC

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*1-625-929-11	XR BOARD ********	
		<CONNECTOR>	
XR1	*1-564-518-11	PLUG, CONNECTOR 3P	
XR2	*1-564-519-11	PLUG, CONNECTOR 4P	

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	*1-625-930-11	XG BOARD ********	
		<CONNECTOR>	
XG1	*1-564-518-11	PLUG, CONNECTOR 3P	
XG2	*1-564-519-11	PLUG, CONNECTOR 4P	

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	*1-625-931-11	XB BOARD ********	
		<CONNECTOR>	
XB2	*1-564-519-11	PLUG, CONNECTOR 4P	

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	*1-625-932-11	YR BOARD ********	
	*4-341-752-01	EYELET	
		<CAPACITOR>	
C1	1-162-115-00	CERAMIC 330PF 10% 2KV	
C2	1-162-115-00	CERAMIC 330PF 10% 2KV	
		<RESISTOR>	
R1	1-202-822-00	SOLID 2.2K 10% 1/2W	
R2	1-202-822-00	SOLID 2.2K 10% 1/2W	
R3	1-249-414-11	CARBON 560 5% 1/4W	
R4	1-249-414-11	CARBON 560 5% 1/4W	
		<CONNECTOR>	
YR1	*1-565-426-11	PLUG, MINIATURE (L TYPE) 4P	
YR2	*1-564-518-11	PLUG, CONNECTOR 3P	

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	*1-625-933-11	YG BOARD ********	
	*4-341-752-01	EYELET	
		<CAPACITOR>	
C3	1-162-115-00	CERAMIC 330PF 10% 2KV	
C4	1-162-115-00	CERAMIC 330PF 10% 2KV	
		<RESISTOR>	
R5	1-202-822-00	SOLID 2.2K 10% 1/2W	
R6	1-202-822-00	SOLID 2.2K 10% 1/2W	
R7	1-249-414-11	CARBON 560 5% 1/4W	
R8	1-249-414-11	CARBON 560 5% 1/4W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<CONNECTOR>	
YG1	*1-565-426-11	PLUG, MINIATURE (L TYPE) 4P	
YG2	*1-564-518-11	PLUG, CONNECTOR 3P	

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	*1-625-934-11	YB BOARD ********	
	*4-341-752-01	EYELET	
		<CAPACITOR>	
C5	1-162-115-00	CERAMIC 330PF 10% 2KV	
C6	1-162-115-00	CERAMIC 330PF 10% 2KV	
		<RESISTOR>	
R9	1-202-822-00	SOLID 2.2K 10% 1/2W	
R10	1-202-822-00	SOLID 2.2K 10% 1/2W	
R11	1-249-414-11	CARBON 560 5% 1/4W	
R12	1-249-414-11	CARBON 560 5% 1/4W	
		<CONNECTOR>	
YB1	*1-565-426-11	PLUG, MINIATURE (L TYPE) 4P	
YB2	*1-564-518-11	PLUG, CONNECTOR 3P	

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	*1-625-924-11	PC BOARD ********	
	*4-341-751-01	EYELET	
	*4-341-752-01	EYELET	
	4-382-854-11	SCREW (M3X10), P, SW (+)	
		<CAPACITOR>	
C1	⚠ 1-136-723-11	FILM 0.02MF 3% 1.6KV	
C2	1-136-729-11	FILM 1.5MF 5% 400V	
C801	1-125-457-11	ELECT(BLOCK) 560MF 20% 200V	
		<DIODE>	
D1	8-719-945-80	DIODE ERC06-15S	
D2	8-719-945-80	DIODE ERC06-15S	
		<COIL>	
L1	1-424-401-11	COIL, CHOKE 1.05MMH	
L801	1-459-862-11	COIL, CHOKE 90UH	
L802	1-424-401-11	COIL, CHOKE 1.05MMH	
		<NEON LAMP>	
NL1	1-519-108-99	LAMP,NEON ASSY	
		<TRANSISTOR>	
Q1	⚠ 8-729-805-07	TRANSISTOR 2SD1887-CA	
		<RESISTOR>	
R1	1-260-083-11	CARBON 47 5% 1/2W	

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*A-1394-304-A U BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C8100	1-126-103-11	ELECT	470MF	20%	16V	
C8101	1-124-477-11	ELECT	47MF	20%	16V	
C8103	1-124-477-11	ELECT	47MF	20%	16V	
C8104	1-126-101-11	ELECT	100MF	20%	16V	
C8200	1-124-477-11	ELECT	47MF	20%	16V	
C8201	1-124-903-11	ELECT	1MF	20%	50V	
C8202	1-124-903-11	ELECT	1MF	20%	50V	
C8203	1-126-101-11	ELECT	100MF	20%	16V	
C8204	1-124-903-11	ELECT	1MF	20%	50V	
C8205	1-124-903-11	ELECT	1MF	20%	50V	
C8206	1-126-101-11	ELECT	100MF	20%	16V	
C8207	1-124-903-11	ELECT	1MF	20%	50V	
C8208	1-124-903-11	ELECT	1MF	20%	50V	
C8209	1-126-103-11	ELECT	470MF	20%	16V	
C8210	1-124-903-11	ELECT	1MF	20%	50V	
C8211	1-124-903-11	ELECT	1MF	20%	50V	
C8212	1-124-903-11	ELECT	1MF	20%	50V	
C8213	1-124-903-11	ELECT	1MF	20%	50V	
C8400	1-126-101-11	ELECT	100MF	20%	16V	
C8401	1-124-477-11	ELECT	47MF	20%	16V	
C8403	1-124-477-11	ELECT	47MF	20%	16V	
C8404	1-102-947-00	CERAMIC	10PF	0.5PF	50V	
C8522	1-126-103-11	ELECT	470MF	20%	16V	
C8523	1-124-477-11	ELECT	47MF	20%	16V	
C8600	1-130-483-00	MYLAR	0.01MF	5%	50V	
C8601	1-124-477-11	ELECT	47MF	20%	16V	
C8603	1-124-477-11	ELECT	47MF	20%	16V	
C8604	1-124-477-11	ELECT	47MF	20%	16V	
C8606	1-124-477-11	ELECT	47MF	20%	16V	
C8607	1-124-477-11	ELECT	47MF	20%	16V	
C8608	1-124-477-11	ELECT	47MF	20%	16V	
C8701	1-102-824-00	CERAMIC	470PF	5%	50V	
C8702	1-102-824-00	CERAMIC	470PF	5%	50V	
C8703	1-102-824-00	CERAMIC	470PF	5%	50V	
C8704	1-102-824-00	CERAMIC	470PF	5%	50V	
C8706	1-102-824-00	CERAMIC	470PF	5%	50V	
C8707	1-102-824-00	CERAMIC	470PF	5%	50V	
C8708	1-124-903-11	ELECT	1MF	20%	50V	
C8709	1-124-903-11	ELECT	1MF	20%	50V	
C8710	1-124-903-11	ELECT	1MF	20%	50V	
C8711	1-102-824-00	CERAMIC	470PF	5%	50V	
C8712	1-102-824-00	CERAMIC	470PF	5%	50V	
C8713	1-124-903-11	ELECT	1MF	20%	50V	
C8714	1-102-824-00	CERAMIC	470PF	5%	50V	
C8715	1-126-103-11	ELECT	470MF	20%	16V	
C8716	1-124-477-11	ELECT	47MF	20%	16V	
C8718	1-124-477-11	ELECT	47MF	20%	16V	
C8719	1-124-119-00	ELECT	330MF	20%	16V	
C8720	1-102-942-00	CERAMIC	5PF	1PF	50V	
C8721	1-102-946-00	CERAMIC	9PF	1PF	50V	
C8750	1-124-119-00	ELECT	330MF	20%	16V	
C8751	1-124-119-00	ELECT	330MF	20%	16V	
C8752	1-124-903-11	ELECT	1MF	20%	50V	
C8753	1-124-903-11	ELECT	1MF	20%	50V	
C8754	1-124-907-11	ELECT	10MF	20%	50V	
C8760	1-124-907-11	ELECT	10MF	20%	50V	
C8761	1-124-903-11	ELECT	1MF	20%	50V	
C8762	1-124-903-11	ELECT	1MF	20%	50V	
C8763	1-126-101-11	ELECT	100MF	20%	16V	
C8764	1-124-119-00	ELECT	330MF	20%	16V	
C8765	1-124-477-11	ELECT	47MF	20%	25V	
C8800	1-124-477-11	ELECT	47MF	20%	16V	
C8801	1-102-944-00	CERAMIC	7PF	0.5PF	50V	
C8802	1-102-944-00	CERAMIC	7PF	0.5PF	50V	
C8803	1-102-944-00	CERAMIC	7PF	0.5PF	50V	
C8804	1-102-944-00	CERAMIC	7PF	0.5PF	50V	
C8805	1-124-477-11	ELECT	47MF	20%	16V	
C8806	1-102-953-00	CERAMIC	18PF	5%	50V	
C8807	1-102-953-00	CERAMIC	18PF	5%	50V	
C8808	1-102-978-00	CERAMIC	220PF	5%	50V	
C8809	1-101-888-00	CERAMIC	68PF	5%	50V	
C8810	1-124-120-11	ELECT	220MF	20%	16V	
C8851	1-102-963-00	CERAMIC	33PF	5%	50V	
C8852	1-102-129-00	CERAMIC	0.01MF	10%	50V	
C8853	1-102-129-00	CERAMIC	0.01MF	10%	50V	
C8854	1-102-129-00	CERAMIC	0.01MF	10%	50V	
C8856	1-102-963-00	CERAMIC	33PF	5%	50V	
C8857	1-102-129-00	CERAMIC	0.01MF	10%	50V	
C8860	1-102-824-00	CERAMIC	470PF	5%	50V	
C8900	1-136-165-00	FILM	0.1MF	5%	50V	
C8901	1-124-034-51	ELECT	33MF	20%	16V	
C8902	1-102-973-00	CERAMIC	100PF	5%	50V	
C8903	1-136-165-00	FILM	0.1MF	5%	50V	
C8904	1-136-165-00	FILM	0.1MF	5%	50V	
C8905	1-124-360-00	ELECT	1000MF	20%	16V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION		REMARK
D8100	8-719-911-19	DIODE	1SS119	
D8101	8-719-911-19	DIODE	1SS119	
D8102	8-719-911-19	DIODE	1SS119	
D8103	8-719-911-19	DIODE	1SS119	
D8104	8-719-911-19	DIODE	1SS119	
D8106	8-719-911-19	DIODE	1SS119	
D8200	8-719-110-36	DIODE	RD13ES-B2	
D8201	8-719-110-36	DIODE	RD13ES-B2	
D8202	8-719-109-88	DIODE	RD5.6ES-B1	
D8203	8-719-110-36	DIODE	RD13ES-B2	
D8204	8-719-110-36	DIODE	RD13ES-B2	
D8205	8-719-110-36	DIODE	RD13ES-B2	
D8206	8-719-110-36	DIODE	RD13ES-B2	
D8207	8-719-110-36	DIODE	RD13ES-B2	
D8208	8-719-110-36	DIODE	RD13ES-B2	
D8209	8-719-110-36	DIODE	RD13ES-B2	
D8210	8-719-110-36	DIODE	RD13ES-B2	
D8211	8-719-110-36	DIODE	RD13ES-B2	
D8212	8-719-110-36	DIODE	RD13ES-B2	
D8213	8-719-110-36	DIODE	RD13ES-B2	
D8214	8-719-110-36	DIODE	RD13ES-B2	
D8400	8-719-911-19	DIODE	1SS119	
D8401	8-719-911-19	DIODE	1SS119	
D8402	8-719-911-19	DIODE	1SS119	
D8403	8-719-911-19	DIODE	1SS119	
D8600	8-719-110-36	DIODE	RD13ES-B2	
D8601	8-719-911-19	DIODE	1SS119	
D8602	8-719-110-36	DIODE	RD13ES-B2	
D8603	8-719-911-19	DIODE	1SS119	
D8604	8-719-911-19	DIODE	1SS119	
D8605	8-719-911-19	DIODE	1SS119	
D8701	8-719-110-36	DIODE	RD13ES-B2	
D8702	8-719-110-36	DIODE	RD13ES-B2	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D8703	8-719-110-36	DIODE RD13ES-B2	
D8704	8-719-110-36	DIODE RD13ES-B2	
D8705	8-719-110-36	DIODE RD13ES-B2	
D8706	8-719-110-36	DIODE RD13ES-B2	
D8707	8-719-911-19	DIODE 1SS119	
D8708	8-719-911-19	DIODE 1SS119	
D8709	8-719-911-19	DIODE 1SS119	
D8710	8-719-911-19	DIODE 1SS119	
D8711	8-719-911-19	DIODE 1SS119	
D8712	8-719-110-36	DIODE RD13ES-B2	
D8713	8-719-911-19	DIODE 1SS119	
D8720	8-719-911-19	DIODE 1SS119	
D8721	8-719-911-19	DIODE 1SS119	
D8722	8-719-911-19	DIODE 1SS119	
	<IC>		
IC8100	8-759-000-49	IC MC14066BCP	
IC8400	8-752-037-04	IC CX-7948A	
IC8501	8-759-000-48	IC MC14052BCP	
IC8600	8-759-000-49	IC MC14066BCP	
IC8601	1-464-880-11	FILTER BLOCK, COM (CFB-2)	
IC8701	8-759-800-81	IC LA7016	
IC8702	8-759-800-81	IC LA7016	
IC8703	8-759-800-81	IC LA7016	
	<JACK>		
J8200	1-565-931-11	TERMINAL BLOCK, S 3P	
J8201	1-565-840-11	PIN JACK BLOCK 6P	
J8202	1-565-838-11	JACK BLOCK, PIN 2P	
J8203	1-563-760-11	JACK, MINIATUER (DIA. 3.5)	
J8204	1-563-760-11	JACK, MINIATUER (DIA. 3.5)	
J8205	1-568-016-11	SOCKET 21P	
	<COIL>		
L8701	1-410-470-11	INDUCTOR 10UH	
L8702	1-410-478-11	INDUCTOR 47UH	
L8703	1-408-416-00	INDUCTOR 39UH	
L8704	1-410-470-11	INDUCTOR 10UH	
	<TRANSISTOR>		
Q8100	8-729-900-89	TRANSISTOR DTC144ES	
Q8101	8-729-900-89	TRANSISTOR DTC144ES	
Q8102	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q8103	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8104	8-729-281-52	TRANSISTOR 2SC1815-Y	
Q8105	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q8106	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8107	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q8108	8-729-900-89	TRANSISTOR DTC144ES	
Q8109	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8400	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q8401	8-729-900-89	TRANSISTOR DTC144ES	
Q8402	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8403	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8404	8-729-900-89	TRANSISTOR DTC144ES	
Q8600	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8601	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8602	8-729-281-52	TRANSISTOR 2SC1815-Y	
Q8603	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8604	8-729-281-52	TRANSISTOR 2SC1815-Y	

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q8605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8606	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8607	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8608	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q8609	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q8610	8-729-900-89	TRANSISTOR DTC144ES	
Q8701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8703	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8704	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8705	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8706	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8707	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8708	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8709	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q8710	8-729-900-89	TRANSISTOR DTC144ES	
Q8711	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8712	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q8713	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8714	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8715	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q8716	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8717	8-729-900-89	TRANSISTOR DTC144ES	
Q8718	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8720	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8721	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8722	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8723	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8725	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8726	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8727	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8728	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8729	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q8730	8-729-900-89	TRANSISTOR DTC144ES	
Q8731	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8800	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8900	8-729-900-61	TRANSISTOR DTA114ES	
		<RESISTOR>	
R8100	1-249-405-11	CARBON 100 5% 1/4W	
R8101	1-249-429-11	CARBON 10K 5% 1/4W	
R8102	1-249-437-11	CARBON 47K 5% 1/4W	
R8103	1-249-429-11	CARBON 10K 5% 1/4W	
R8104	1-249-441-11	CARBON 100K 5% 1/4W	
R8105	1-249-437-11	CARBON 47K 5% 1/4W	
R8106	1-249-441-11	CARBON 100K 5% 1/4W	
R8107	1-249-429-11	CARBON 10K 5% 1/4W	
R8108	1-249-441-11	CARBON 100K 5% 1/4W	
R8109	1-249-441-11	CARBON 100K 5% 1/4W	
R8110	1-249-423-11	CARBON 3.3K 5% 1/4W	
R8111	1-249-419-11	CARBON 1.5K 5% 1/4W	
R8112	1-215-406-00	METAL 240 1% 1/4W	
R8113	1-215-397-00	METAL 100 1% 1/4W	
R8114	1-215-415-00	METAL 560 1% 1/4W	
R8115	1-249-429-11	CARBON 10K 5% 1/4W	
R8116	1-249-423-11	CARBON 3.3K 5% 1/4W	
R8117	1-249-417-11	CARBON 1K 5% 1/4W	
R8118	1-249-417-11	CARBON 1K 5% 1/4W	
R8119	1-249-417-11	CARBON 1K 5% 1/4W	
R8120	1-249-423-11	CARBON 3.3K 5% 1/4W	
R8121	1-249-415-11	CARBON 680 5% 1/4W	
R8122	1-249-415-11	CARBON 680 5% 1/4W	
R8123	1-249-420-11	CARBON 1.8K 5% 1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R8124	1-249-420-11	CARBON	1.8K	5%	1/4W	
R8125	1-249-420-11	CARBON	1.8K	5%	1/4W	
R8126	1-249-420-11	CARBON	1.8K	5%	1/4W	
R8127	1-249-403-11	CARBON	68	5%	1/4W	
R8129	1-249-429-11	CARBON	10K	5%	1/4W	
R8130	1-249-405-11	CARBON	100	5%	1/4W	
R8131	1-249-405-11	CARBON	100	5%	1/4W	
R8132	1-249-397-11	CARBON	22	5%	1/4W	
R8133	1-249-405-11	CARBON	100	5%	1/4W	
R8134	1-249-409-11	CARBON	220	5%	1/4W	
R8200	1-249-404-00	CARBON	82	5%	1/4W	
R8201	1-249-417-11	CARBON	1K	5%	1/4W	
R8202	1-247-895-00	CARBON	470K	5%	1/4W	
R8203	1-249-417-11	CARBON	1K	5%	1/4W	
R8204	1-247-895-00	CARBON	470K	5%	1/4W	
R8205	1-249-404-00	CARBON	82	5%	1/4W	
R8206	1-249-417-11	CARBON	1K	5%	1/4W	
R8207	1-247-895-00	CARBON	470K	5%	1/4W	
R8208	1-249-417-11	CARBON	1K	5%	1/4W	
R8209	1-247-895-00	CARBON	470K	5%	1/4W	
R8210	1-249-417-11	CARBON	1K	5%	1/4W	
R8211	1-249-404-00	CARBON	82	5%	1/4W	
R8212	1-249-417-11	CARBON	1K	5%	1/4W	
R8213	1-247-895-00	CARBON	470K	5%	1/4W	
R8214	1-249-417-11	CARBON	1K	5%	1/4W	
R8215	1-247-895-00	CARBON	470K	5%	1/4W	
R8216	1-249-403-11	CARBON	68	5%	1/4W	
R8217	1-249-416-11	CARBON	820	5%	1/4W	
R8218	1-249-417-11	CARBON	1K	5%	1/4W	
R8219	1-249-441-11	CARBON	100K	5%	1/4W	
R8220	1-249-417-11	CARBON	1K	5%	1/4W	
R8221	1-249-441-11	CARBON	100K	5%	1/4W	
R8222	1-249-417-11	CARBON	1K	5%	1/4W	
R8223	1-249-441-11	CARBON	100K	5%	1/4W	
R8224	1-249-417-11	CARBON	1K	5%	1/4W	
R8225	1-249-441-11	CARBON	100K	5%	1/4W	
R8400	1-249-421-11	CARBON	2.2K	5%	1/4W	
R8401	1-249-413-11	CARBON	470	5%	1/4W	
R8402	1-249-417-11	CARBON	1K	5%	1/4W	
R8403	1-249-425-11	CARBON	4.7K	5%	1/4W	
R8404	1-249-423-11	CARBON	3.3K	5%	1/4W	
R8405	1-247-903-00	CARBON	1M	5%	1/4W	
R8406	1-249-405-11	CARBON	100	5%	1/4W	
R8407	1-249-421-11	CARBON	2.2K	5%	1/4W	
R8408	1-249-429-11	CARBON	10K	5%	1/4W	
R8409	1-249-429-11	CARBON	10K	5%	1/4W	
R8410	1-249-429-11	CARBON	10K	5%	1/4W	
R8411	1-249-441-11	CARBON	100K	5%	1/4W	
R8412	1-249-401-11	CARBON	47	5%	1/4W	
R8413	1-249-421-11	CARBON	2.2K	5%	1/4W	
R8531	1-249-405-11	CARBON	100	5%	1/4W	
R8532	1-249-421-11	CARBON	2.2K	5%	1/4W	
R8533	1-249-421-11	CARBON	2.2K	5%	1/4W	
R8601	1-249-404-00	CARBON	82	5%	1/4W	
R8602	1-249-422-11	CARBON	2.7K	5%	1/4W	
R8603	1-249-419-11	CARBON	1.5K	5%	1/4W	
R8604	1-249-418-11	CARBON	1.2K	5%	1/4W	
R8605	1-215-406-00	METAL	240	1%	1/4W	
R8606	1-215-399-00	METAL	120	1%	1/4W	
R8607	1-215-415-00	METAL	560	1%	1/4W	
R8608	1-249-429-11	CARBON	10K	5%	1/4W	
R8609	1-249-422-11	CARBON	2.7K	5%	1/4W	
R8610	1-249-404-00	CARBON	82	5%	1/4W	
R8611	1-249-422-11	CARBON	2.7K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R8612	1-249-419-11	CARBON	1.5K	5%	1/4W	
R8613	1-249-418-11	CARBON	1.2K	5%	1/4W	
R8614	1-215-406-00	METAL	240	1%	1/4W	
R8615	1-215-399-00	METAL	120	1%	1/4W	
R8616	1-215-415-00	METAL	560	1%	1/4W	
R8617	1-249-429-11	CARBON	10K	5%	1/4W	
R8618	1-249-422-11	CARBON	2.7K	5%	1/4W	
R8619	1-249-441-11	CARBON	100K	5%	1/4W	
R8620	1-249-441-11	CARBON	100K	5%	1/4W	
R8621	1-249-421-11	CARBON	2.2K	5%	1/4W	
R8622	1-249-405-11	CARBON	100	5%	1/4W	
R8623	1-247-895-00	CARBON	470K	5%	1/4W	
R8624	1-249-441-11	CARBON	100K	5%	1/4W	
R8625	1-249-418-11	CARBON	1.2K	5%	1/4W	
R8626	1-249-421-11	CARBON	2.2K	5%	1/4W	
R8627	1-249-405-11	CARBON	100	5%	1/4W	
R8628	1-249-405-11	CARBON	100	5%	1/4W	
R8629	1-249-405-11	CARBON	100	5%	1/4W	
R8630	1-249-413-11	CARBON	470	5%	1/4W	
R8633	1-249-401-11	CARBON	47	5%	1/4W	
R8634	1-249-405-11	CARBON	100	5%	1/4W	
R8635	1-249-421-11	CARBON	2.2K	5%	1/4W	
R8636	1-249-405-11	CARBON	100	5%	1/4W	
R8637	1-249-421-11	CARBON	2.2K	5%	1/4W	
R8640	1-249-418-11	CARBON	1.2K	5%	1/4W	
R8641	1-249-418-11	CARBON	1.2K	5%	1/4W	
R8650	1-249-425-11	CARBON	4.7K	5%	1/4W	
R8701	1-249-437-11	CARBON	47K	5%	1/4W	
R8702	1-249-417-11	CARBON	1K	5%	1/4W	
R8703	1-249-437-11	CARBON	47K	5%	1/4W	
R8704	1-249-417-11	CARBON	1K	5%	1/4W	
R8705	1-247-895-00	CARBON	470K	5%	1/4W	
R8706	1-249-417-11	CARBON	1K	5%	1/4W	
R8707	1-249-417-11	CARBON	1K	5%	1/4W	
R8708	1-249-404-00	CARBON	82	5%	1/4W	
R8709	1-247-895-00	CARBON	470K	5%	1/4W	
R8710	1-249-404-00	CARBON	82	5%	1/4W	
R8711	1-249-404-00	CARBON	82	5%	1/4W	
R8712	1-249-403-11	CARBON	68	5%	1/4W	
R8713	1-249-404-00	CARBON	82	5%	1/4W	
R8714	1-249-437-11	CARBON	47K	5%	1/4W	
R8715	1-249-413-11	CARBON	470	5%	1/4W	
R8716	1-249-418-11	CARBON	1.2K	5%	1/4W	
R8717	1-249-430-11	CARBON	12K	5%	1/4W	
R8718	1-249-429-11	CARBON	10K	5%	1/4W	
R8719	1-249-409-11	CARBON	220	5%	1/4W	
R8720	1-249-421-11	CARBON	2.2K	5%	1/4W	
R8721	1-249-420-11	CARBON	1.8K	5%	1/4W	
R8722	1-249-411-11	CARBON	330	5%	1/4W	
R8723	1-249-417-11	CARBON	1K	5%	1/4W	
R8724	1-249-417-11	CARBON	1K	5%	1/4W	
R8725	1-249-417-11	CARBON	1K	5%	1/4W	
R8726	1-249-417-11	CARBON	1K	5%	1/4W	
R8727	1-249-409-11	CARBON	220	5%	1/4W	
R8728	1-247-804-11	CARBON	75	5%	1/4W	
R8729	1-249-433-11	CARBON	22K	5%	1/4W	
R8730	1-249-433-11	CARBON	22K	5%	1/4W	
R8750	1-249-409-11	CARBON	220	5%	1/4W	
R8751	1-249-421-11	CARBON	2.2K	5%	1/4W	
R8752	1-249-421-11	CARBON	2.2K	5%	1/4W	
R8753	1-249-409-11	CARBON	220	5%	1/4W	
R8754	1-249-413-11	CARBON	470	5%	1/4W	
R8755	1-249-409-11	CARBON	220	5%	1/4W	

U **G**

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R8756	1-249-431-11	CARBON	15K	5%	1/4W	
R8757	1-249-435-11	CARBON	33K	5%	1/4W	
R8758	1-247-868-11	CARBON	36K	5%	1/4W	
R8759	1-249-421-11	CARBON	2.2K	5%	1/4W	
R8760	1-249-426-11	CARBON	5.6K	5%	1/4W	
R8761	1-249-427-11	CARBON	6.8K	5%	1/4W	
R8762	1-249-435-11	CARBON	33K	5%	1/4W	
R8763	1-249-435-11	CARBON	33K	5%	1/4W	
R8764	1-249-409-11	CARBON	220	5%	1/4W	
R8765	1-249-431-11	CARBON	15K	5%	1/4W	
R8766	1-247-868-11	CARBON	36K	5%	1/4W	
R8767	1-249-421-11	CARBON	2.2K	5%	1/4W	
R8768	1-249-427-11	CARBON	6.8K	5%	1/4W	
R8769	1-249-435-11	CARBON	33K	5%	1/4W	
R8770	1-249-435-11	CARBON	33K	5%	1/4W	
R8771	1-249-413-11	CARBON	470	5%	1/4W	
R8772	1-249-409-11	CARBON	220	5%	1/4W	
R8774	1-249-437-11	CARBON	47K	5%	1/4W	
R8775	1-249-437-11	CARBON	47K	5%	1/4W	
R8776	1-249-425-11	CARBON	4.7K	5%	1/4W	
R8779	1-249-425-11	CARBON	4.7K	5%	1/4W	
R8780	1-249-435-11	CARBON	33K	5%	1/4W	
R8781	1-247-868-11	CARBON	36K	5%	1/4W	
R8782	1-249-427-11	CARBON	6.8K	5%	1/4W	
R8783	1-249-435-11	CARBON	33K	5%	1/4W	
R8784	1-249-426-11	CARBON	5.6K	5%	1/4W	
R8785	1-249-421-11	CARBON	2.2K	5%	1/4W	
R8786	1-249-413-11	CARBON	470	5%	1/4W	
R8787	1-249-431-11	CARBON	15K	5%	1/4W	
R8788	1-249-409-11	CARBON	220	5%	1/4W	
R8789	1-249-435-11	CARBON	33K	5%	1/4W	
R8790	1-247-868-11	CARBON	36K	5%	1/4W	
R8791	1-249-427-11	CARBON	6.8K	5%	1/4W	
R8792	1-249-421-11	CARBON	2.2K	5%	1/4W	
R8793	1-249-431-11	CARBON	15K	5%	1/4W	
R8794	1-249-409-11	CARBON	220	5%	1/4W	
R8795	1-249-425-11	CARBON	4.7K	5%	1/4W	
R8796	1-249-425-11	CARBON	4.7K	5%	1/4W	
R8797	1-249-425-11	CARBON	4.7K	5%	1/4W	
R8798	1-249-425-11	CARBON	4.7K	5%	1/4W	
R8800	1-249-401-11	CARBON	47	5%	1/4W	
R8801	1-249-419-11	CARBON	1.5K	5%	1/4W	
R8802	1-249-410-11	CARBON	270	5%	1/4W	
R8803	1-249-417-11	CARBON	1K	5%	1/4W	
R8804	1-249-417-11	CARBON	1K	5%	1/4W	
R8805	1-249-410-11	CARBON	270	5%	1/4W	
R8806	1-249-423-11	CARBON	3.3K	5%	1/4W	
R8807	1-249-409-11	CARBON	220	5%	1/4W	
R8808	1-249-415-11	CARBON	680	5%	1/4W	
R8809	1-249-416-11	CARBON	820	5%	1/4W	
R8810	1-249-415-11	CARBON	680	5%	1/4W	
R8811	1-249-413-11	CARBON	470	5%	1/4W	
R8812	1-249-414-11	CARBON	560	5%	1/4W	
R8813	1-249-414-11	CARBON	560	5%	1/4W	
R8814	1-249-415-11	CARBON	680	5%	1/4W	
R8815	1-249-405-11	CARBON	100	5%	1/4W	
R8816	1-249-405-11	CARBON	100	5%	1/4W	
R8817	1-249-415-11	CARBON	680	5%	1/4W	
R8818	1-249-405-11	CARBON	100	5%	1/4W	
R8851	1-249-417-11	CARBON	1K	5%	1/4W	
R8852	1-249-417-11	CARBON	1K	5%	1/4W	
R8853	1-249-417-11	CARBON	1K	5%	1/4W	
R8854	1-249-430-11	CARBON	12K	5%	1/4W	
R8855	1-249-425-11	CARBON	4.7K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R8856	1-249-417-11	CARBON	1K	5%	1/4W	
R8857	1-249-411-11	CARBON	330	5%	1/4W	
R8858	1-249-414-11	CARBON	560	5%	1/4W	
R8859	1-249-441-11	CARBON	100K	5%	1/4W	
R8860	1-249-441-11	CARBON	100K	5%	1/4W	
R8861	1-249-441-11	CARBON	100K	5%	1/4W	
R8862	1-249-441-11	CARBON	100K	5%	1/4W	
R8863	1-249-441-11	CARBON	100K	5%	1/4W	
R8864	1-249-441-11	CARBON	100K	5%	1/4W	
R8865	1-249-429-11	CARBON	10K	5%	1/4W	
R8866	1-249-429-11	CARBON	10K	5%	1/4W	
R8871	1-249-429-11	CARBON	10K	5%	1/4W	
R8901	1-249-405-11	CARBON	100	5%	1/4W	
R8902	1-249-405-11	CARBON	100	5%	1/4W	
R8903	1-249-405-11	CARBON	100	5%	1/4W	
R8904	1-249-415-11	CARBON	680	5%	1/4W	

<TRANSFORMER>

T8001	1-404-495-00	COIL
T8002	1-404-495-00	COIL

<CONNECTOR>

U1	*1-564-511-11	PLUG, CONNECTOR 8P
U2	*1-564-509-11	PLUG, CONNECTOR 6P
U3	*1-564-508-11	PLUG, CONNECTOR 5P
U4	*1-564-512-11	PLUG, CONNECTOR 9P
U5	*1-564-511-11	PLUG, CONNECTOR 8P
U7	*1-564-506-11	PLUG, CONNECTOR 3P
U9	*1-564-511-11	PLUG, CONNECTOR 8P
U10	*1-565-425-11	PLUG, MINIATURE (L TYPE) 3P

<CRYSTAL>

X8400	1-577-099-11	VIBRATOR, CERAMIC

****

⚠ 1-413-536-13 G BOARD (ZD-106A)
****

	*4-341-751-01	EYELET (EY601,EY602,EY603,EY612,EY613, EY614,EY615,EY616,EY617,EY618,EY619, EY620,EY621,EY622,EY623,EY624,EY625, EY626,EY627,EY633,EY634,EY635,EY636)
	*4-341-752-01	EYELET (EY631,EY632)
	9-832-321-21	WIRE KIT (ZD-106A)

<CAPACITOR>

C601 ⚠	1-136-721-61	FILM	1.5MF	10%	400V
C602 ⚠	1-137-141-11	FILM	0.082MF	3%	600V
C603 ⚠	1-137-141-11	FILM	0.082MF	3%	600V
C604 ⚠	1-136-853-11	FILM	0.56MF	5%	200V
C605 ⚠	1-136-853-11	FILM	0.56MF	5%	200V
C607 ⚠	1-101-821-91	CERAMIC	2200PF		500V
C608 ⚠	1-164-143-91	CERAMIC	1000PF	10%	1KV
C609 ⚠	1-164-625-91	CERAMIC	680PF	10%	500V
C610 ⚠	1-164-143-91	CERAMIC	1000PF	10%	1KV
C611 ⚠	1-164-625-91	CERAMIC	680PF	10%	500V
C612 ⚠	1-123-929-91	ELECT	1MF	20%	160V
C613 ⚠	1-123-929-91	ELECT	1MF	20%	160V
C616 ⚠	1-164-143-91	CERAMIC	1000PF	10%	1KV
C617 ⚠	1-164-143-91	CERAMIC	1000PF	10%	1KV

KPR-5300M
RM-819

SERVICE MANUAL

E Model
Chassis No. SCC-E43A-A

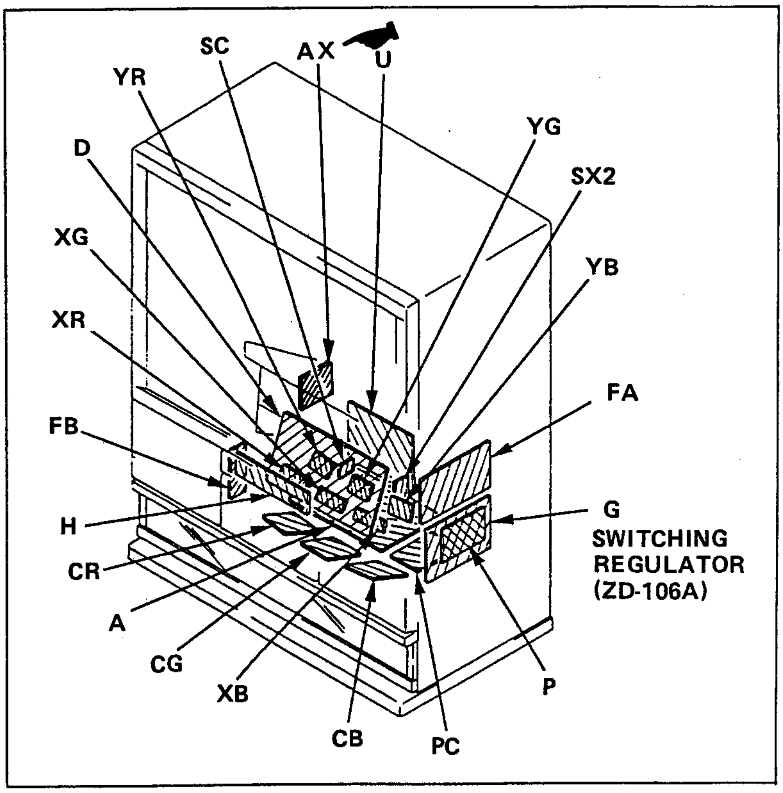
CORRECTION-1

File this correction with the Service Manual.

INTRODUCTION
1. Addition : AX Board.
2. Changed : Printed color (P, PC, SX2, SC, CR, CG, CB, YR, YG, YB, XR, XG, XB)
3. Modified : SECTION 4 SAFETY RELATED ADJUSTMENTS.

☞ : Indicates modified portion.

6-2. CIRCUIT BOARDS LOCATION


SC
AX
U
YR
YG
D
SX2
XG
YB
XR
FA
FB
H
G
SWITCHING
REGULATOR
(ZD-106A)
CR
A
CG
XB
CB
PC
P

SECTION 4

SAFETY RELATED ADJUSTMENTS

HV-HOLD DOWN AND HV-REGULATOR ADJUSTMENT

When replacing the following components, make the HV, HOLD DOWN adjustments.

IC804, Q804, D806, D808, C819, R807,
R829, R830, R831, R832, R833, R837,
R838, R839, R840, R841, HV BLOCK
} (◪) P board

When replacing the following components, make the HV, REGULATOR adjustments.

IC803, IC805, D807, C818, R824, R825,
R826, R827, R838, R834, R835, R836,
R864, R865, HV BLOCK
} (◪) P board

B+ VOLTAGE CONFIRMATION

The following adjustment should always be performed when replacing IC601 and R621.

(1) Supply AC130V from a variable auto-transformer.
(2) Receive a monoscope signal.
(3) Set the PICTURE control to maximum and the BRIGHTNESS control to reset.
(4) Connect a digital multimeter to pin ⑨ (B+line) of the G-2 connector on the G board.
(5) Confirm the voltage on digital multimeter is 115.0±2.0 VDC.

* Using a high-tension meter

1. HV-HOLD DOWN CIRCUIT (◪R830, R831)

(1) Receive a completely white signal and set the PICTURE and BRIGHTNESS controls to maximum.
* Make sure sync is being applied.
(2) Make sure that the power switch is turned off.
(3) Connect the positive lead of the high-tension meter to the HV block and the negative lead to the chassis ground.
(4) Disconnect the R826 and R827 resistances from the P board and connect a variable resistor Ⓐ (50 kΩ) between the terminals.
* Set the variable resistor Ⓐ to minimum.
(5) Disconnect the R830 and R831 resistances from the P board and connect a variable resistor Ⓑ (50 kΩ) between the terminals.
* Set the variable resistor to minimum.
(6) Turn on the power supply and adjust the variable resistor Ⓐ so that the high-tension meter indicates 33.5±0.5 KVDC.
(7) Slowly turn the variable resistor Ⓑ and set at the position where the HV-HOLD DOWN circuit operates and raster disappears.
(8) Turn off the power supply, disconnect variable resistor Ⓑ and measure the resistance value using a digital multimeter.
(9) Select and mount resistors R830 and R831 so that the total series resistance is equal to the value measured in item (8).
(10) Turn on the power supply, and slowly turn variable resistor Ⓐ and confirm that the voltage is 33.5±0.5 kV whereby the raster disappears during operation of HV-HOLD DONW circuit.

KPR-5300M
RM-819

SONY
SERVICE MANUAL

E Model

Chassis No. SCC-E43A-A

CORRECTION-2

SUBJECT: CIRCUIT MODIFICATION

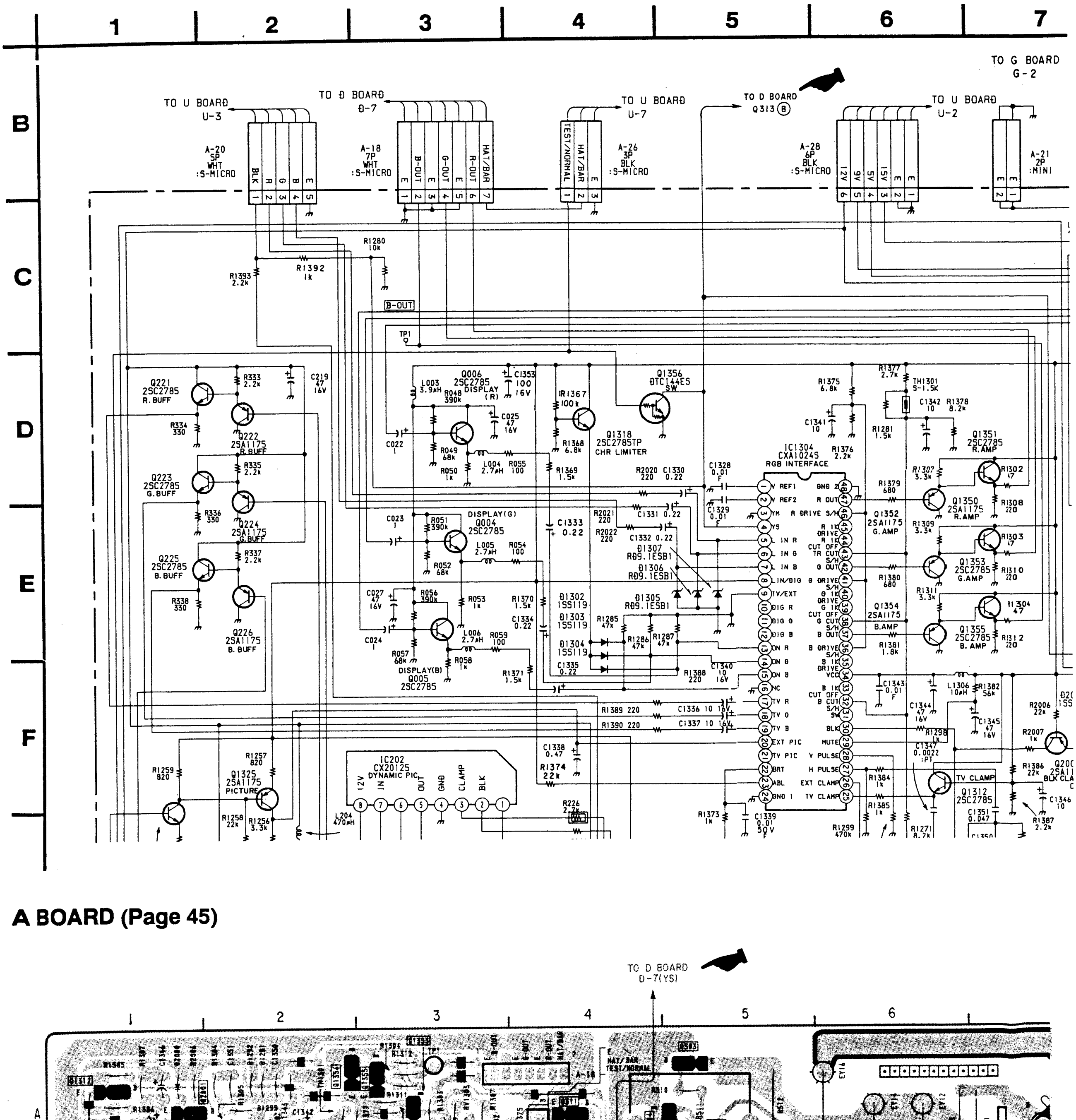
Correct the service manual as shown below.

☞ : **Indicates modified portion.**

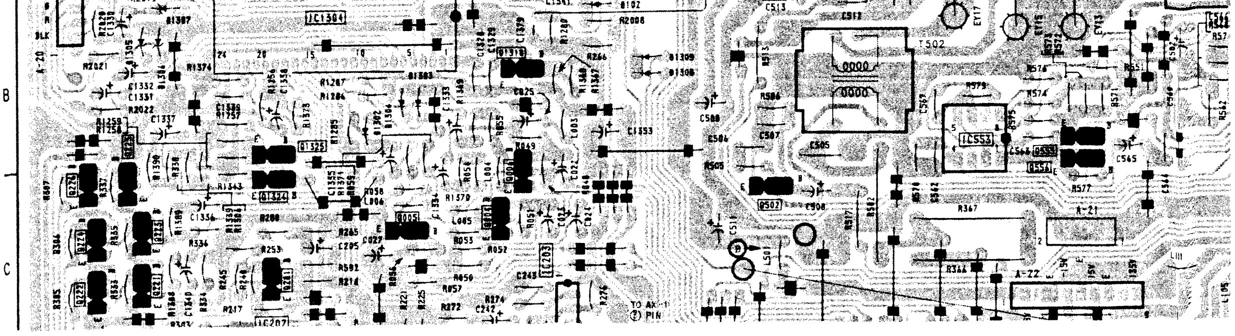
SECTION 6. DIAGRAMS

6-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARD

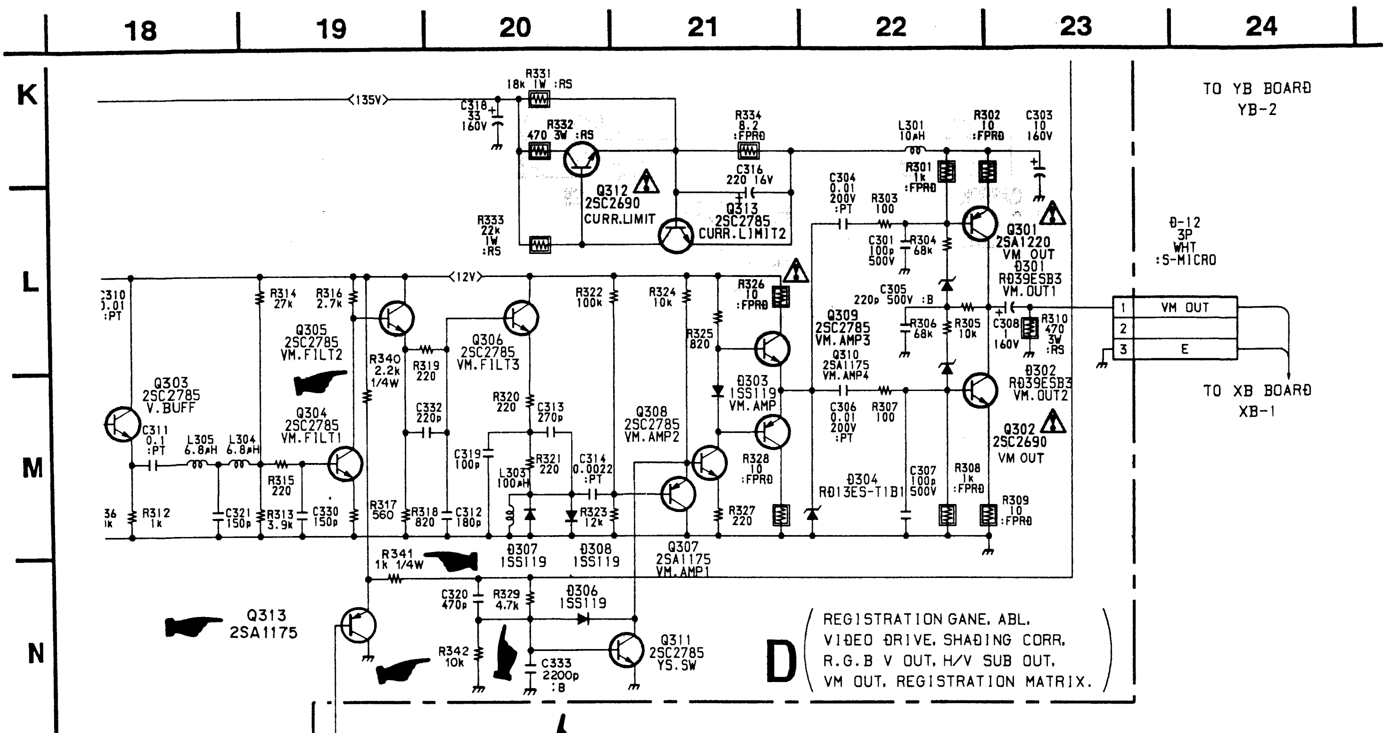
- **A BOARD (Page 47 to 48)**


1
2
3
4
5
6
7
B
C
D
E
F
TO U BOARD U-3
TO D BOARD D-7
TO U BOARD U-7
TO D BOARD Q313 (B)
TO U BOARD U-2
TO G BOARD G-2
A-20 5P WHT :S-MICRO
A-18 7P WHT :S-MICRO
A-26 3P BLK :S-MICRO
A-28 6P BLK :S-MICRO
A-21 2P :MINI
BLK
R
G
B
E
B-OUT
G-OUT
R-OUT
HAT/BAR
TEST/NORMAL
12V
9V
5V
15V
R1280 10k
R1393 2.2k
R1392 1k
B-OUT
TP1
Q221 2SC2785 R.BUFF
Q222 2SA1175 R.BUFF
Q223 2SC2785 G.BUFF
Q224 2SA1175 G.BUFF
Q225 2SC2785 B.BUFF
Q226 2SA1175 B.BUFF
C219 47 16V
Q006 2SC2785 DISPLAY (R)
Q004 2SC2785 DISPLAY(G)
Q005 2SC2785 DISPLAY(B)
L003 3.9μH
L004 2.7μH
L005 2.7μH
L006 2.7μH
Q1318 2SC2785TP CHR LIMITER
Q1356 DTC144ES SW
IC1304 CXA1024S RGB INTERFACE
D1302 1SS119
D1303 1SS119
D1304 1SS119
D1305 RD9.1ESB1
D1306 RD9.1ESB1
D1307 RD9.1ESB1
Q1350 2SA1175 R.AMP
Q1351 2SC2785 R.AMP
Q1352 2SA1175 G.AMP
Q1353 2SC2785 G.AMP
Q1354 2SA1175 B.AMP
Q1355 2SC2785 B.AMP
TH1301 5-1.5K
Q1312 2SC2785
TV CLAMP
Q1325 2SA1175 PICTURE
IC202 CX20125 DYNAMIC PIC
12V
IN
OUT
GND
CLAMP
BLK
L204 470μH
R226 2.2k
L1306 10μH

- **A BOARD (Page 45)**


TO D BOARD D-7(YS)
1
2
3
4
5
6
A
B
C
A-20
A-18
A-21
A-22
IC1304
T502
IC553
IC203
Q502
TP1
TO AX-1 ⑦ PIN

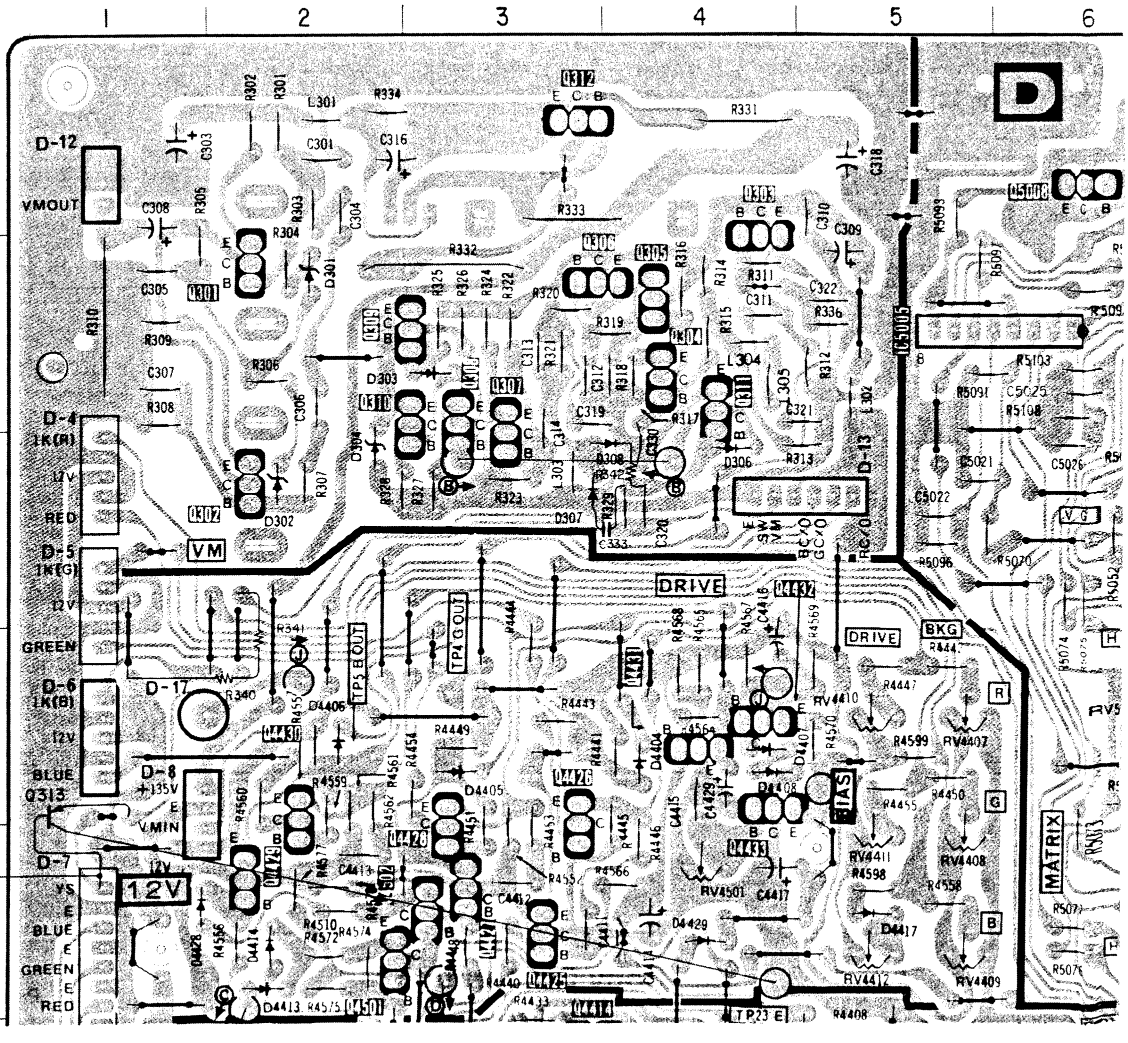
• D BOARD (Page 67 to 68)


18
19
20
21
22
23
24
K
L
M
N
<135V>
<12V>
R331 18k 1W :RS
C318 33 160V
R332 470 3W :RS
Q312 2SC2690 CURR.LIMIT
R333 22k 1W :RS
Q313 2SC2785 CURR.LIMIT2
R334 8.2 :FPRD
C316 220 16V
L301 10μH
R302 10 :FPRD
C303 10 160V
R301 1k :FPRD
C304 0.01 200V :PT
R303 100
C301 100p 500V
R304 68k
Q301 2SA1220 VM OUT
D301 RD39ESB3 VM.OUT1
C305 220p 500V :B
R306 68k
R305 10k
C308 1 160V
R310 470 3W :RS
D302 RD39ESB3 VM.OUT2
Q302 2SC2690 VM OUT
R309 10 :FPRD
R308 1k :FPRD
C307 100p 500V
D304 RD13ES-T1B1
C306 0.01 200V :PT
R307 100
Q309 2SC2785 VM.AMP3
Q310 2SA1175 VM.AMP4
D303 1SS119 VM.AMP
R326 10 :FPRD
R325 820
R328 10 :FPRD
R327 220
Q308 2SC2785 VM.AMP2
Q307 2SA1175 VM.AMP1
R322 100k
R324 10k
Q306 2SC2785 VM.FILT3
Q305 2SC2785 VM.FILT2
Q304 2SC2785 VM.FILT1
Q303 2SC2785 V.BUFF
R314 27k
R316 2.7k
R340 2.2k 1/4W
R319 220
R320 220
C332 220p
C313 270p
C319 100p
L303 100μH
R321 220
C314 0.0022 :PT
R323 12k
R317 560
R318 820
C312 180p
C310 0.01 :PT
C311 0.1 :PT
L305 6.8μH
L304 6.8μH
R315 220
R312 1k
C321 150p
R313 3.9k
C330 150p
R341 1k 1/4W
D307 1SS119
D308 1SS119
C320 470p
R329 4.7k
D306 1SS119
Q313 2SA1175
R342 10k
C333 2200p :B
Q311 2SC2785 YS.SW
D-12 3P WHT :S-MICRO
1 VM OUT
2
3 E
TO YB BOARD YB-2
TO XB BOARD XB-1
D
REGISTRATION GANE, ABL, VIDEO DRIVE, SHADING CORR, R.G.B V OUT, H/V SUB OUT, VM OUT, REGISTRATION MATRIX.
TO A BOARD IC1304 ④ PIN

• PARTS LOCATION

C333	**C-4**	**R329**	**C-4**	**R341**	**D-2**
Q313	**D-1**	**R340**	**D-2**	**R342**	**C-4**

• D BOARD (Page 62)

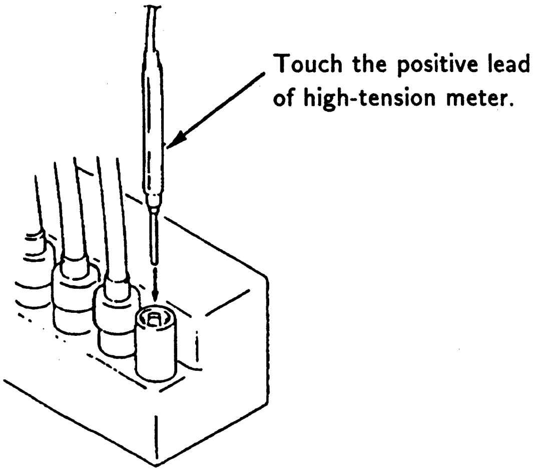

1
2
3
4
5
6
A
B
C
D
E
D-12
VMOUT
D-4 IK(R) 12V RED
D-5 IK(G) 12V GREEN
D-6 IK(B) 12V BLUE
D-8 +135V E VMIN
Q313
D-7 VS E BLUE E GREEN E RED
12V
VM
D-17
D-13
DRIVE
BKG
BIAS
MATRIX
TP5 B OUT
TP4 G OUT
TP23
Q301
Q302
Q303
Q304
Q305
Q306
Q307
Q309
Q310
Q311
Q312
D

SECTION 8 ELECTRICAL PARTS LIST: D BOARD

Page	INCORRECT	CORRECT
98	....	C333 1-102-121-61 CERAMIC 0.0022MF 10% 50V
99	Q313 ⚠8-729-119-78 TRANSISTOR 2SC2785-HFE	Q313 ⚠8-729-119-76 TRANSISTOR 2A1175
100	R329 1-249-425-11 CARBON 4.7K 5% 1/4W R340 1-247-717-11 CARBON 2.2K 5% 1/4W R341 1-247-713-11 CARBON 1K 5% 1/4W R342 1-249-429-11 CARBON 10K 5% 1/4W	R329 1-247-847-91 CARBON 4.7K 5% 1/4W R340 1-246-481-15 CARBON 2.2K 5% 1/4W R341 1-246-473-25 CARBON 1K 5% 1/4W R342 1-247-855-31 CARBON 10K 5% 1/4W

Sony Corporation
TV Group

English
91KE0914-1
Printed in Japan
© 1991. 11



* Using a high-tension meter.

2. HV-REGULATOR CIRCUIT (⧓R826, R827)

(1) Receive a dot signal and set the PICTURE and BRIGHTNESS controls to minimum.
 * Make sure sync is applied.

(2) Make sure that the power switch is turned off.

(3) Connect the positive lead of the high-tension meter to the HV block and the negative lead to the chassis ground.

(4) Disconnect the R826 and R827 resistances from the P board and connect a variable resistor Ⓒ (50kΩ) between the terminals.
 * Set the variable resistor to maximum.

(5) Turn on the power supply and adjust the variable resistor Ⓒ so that the high-tension meter indicates 31.5±0.5 KV.

(6) Disconnect variable resistor Ⓒ and measure the resistance value using a digital multimeter.

(7) Select and mount resistors R826 so that the total series resistance is equal to the value measured in item (6).

(8) Turn on the power supply and check if the high-tension meter indicates 31.5±0.5 kV.

(9) Turn off the power supply, disconnect the high-tension meter and return to the original status.

* When a high-tension meter is not available.

1. HV-HOLD DOWN CIRCUIT (⧓R830, R831)

(1) Receive a completely white signal and set the PICTURE and BRIGHTNESS controls to maximum.
* Make sure sync is applied.

(2) Make sure that the power switch is turned off.

(3) Disconnect the R826 and R827 resistance from the P board and connect a variable resistor Ⓓ (50 kΩ) between the terminals.
* Set the variable resistor to maximum.

(4) Disconnect the R830 and R831 resistances from the P board and connect a variable resistor Ⓔ (50 kΩ) between the terminals.
* Set the variable resistor to minimum.

(5) Connect a digital multimeter between D801 (cathode) and chassis ground.

(6) Turn on the power supply and adjust the variable resistor Ⓓ so that the multimeter indicates DC134.0V.

(7) Turn the variable resistor Ⓔ and set to the position where the HV-HOLD DOWN circuit operates and raster disappears.

(8) Turn off the power supply, disconnect variable resistor Ⓔand measure the resistance value.

(9) Select and mount resistors R830 and R831 so that the total series resistance is equal to the value measured in item (8).

(10) Turn on the power supply and adjust the variable resistor Ⓓ so that the multimeter indicates DC134.0±1.0V the instant the HV-HOLD DOWN circuit operates and raster disappears.

* When a high-tension meter is not available.

2. HV-REGULATOR CIRCUIT (⧓R826, R827)

(1) Receive a completely white signal and set the PICTURE and BRIGHTNESS controls to maximum.
* Make sure sync is applied.

(2) Make sure that the power switch is turned off.

(3) Disconnect the R826 and R827 resistance from the P board and connect a variable resistorⒻ (50 kΩ) between the terminals.
* Set the variable resistor to maximum.

(4) Connect a digital multimeter between D801 (cathode) and chassis ground.

(5) Turn on the power supply and adjust the variable resistor Ⓕ so that the multimeter indicates DC125.0±0.5V.

(6) Turn off the power supply, disconnect variable resistor Ⓕand measure the resistance value.

(7) Select and mount resistors R826 and R827 so that the total series resistance is equal to the value measured in item (6).

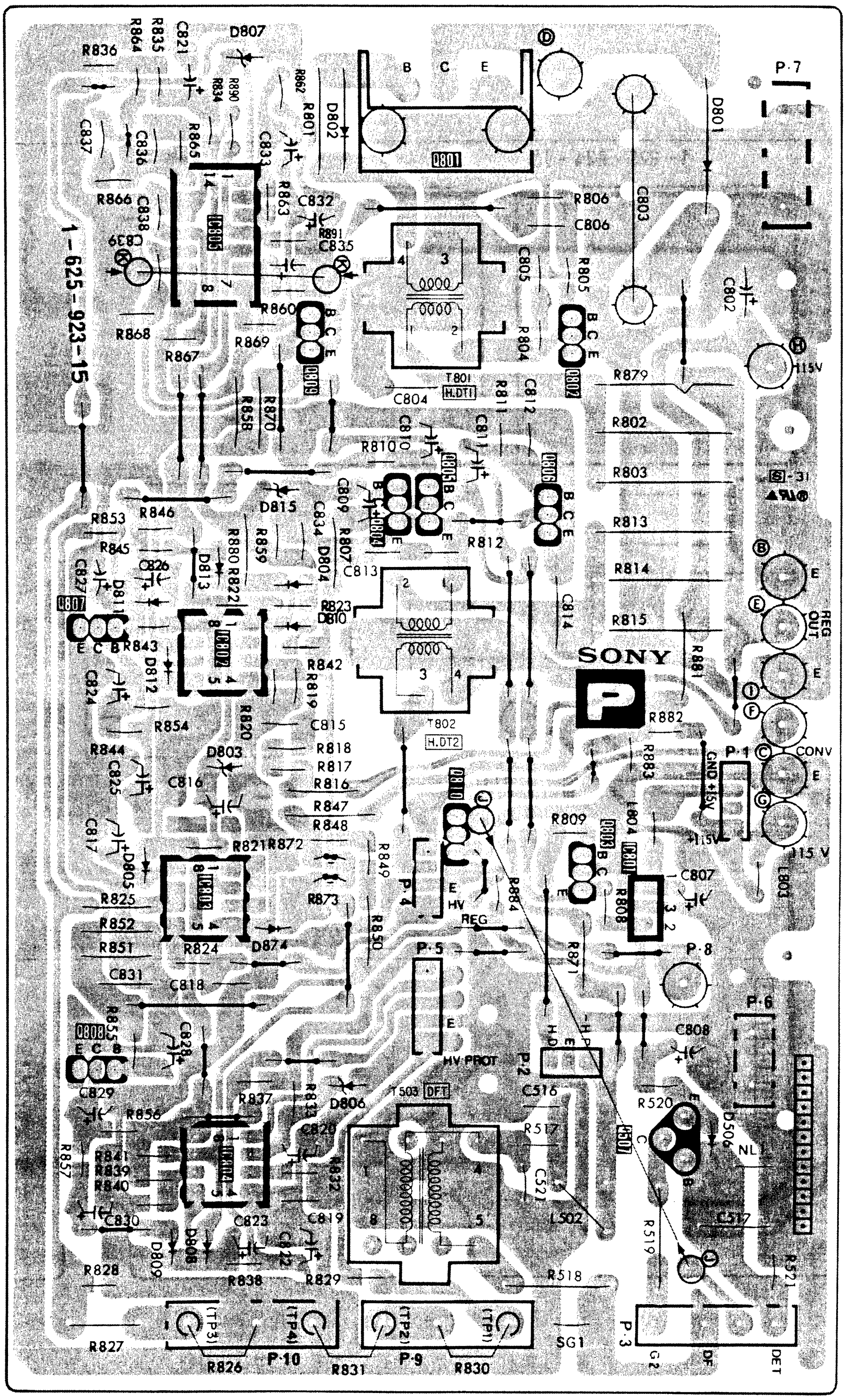
(8) Turn on the power supply and check if the D801 cathode voltage is DC125±1.0V.

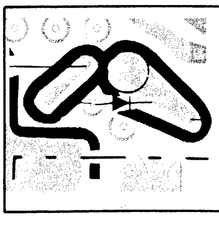
(9) Turn off the power supply and disconnect the digital multimeter.

6-3. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

P [H/V REG, H/V DRIVE,
H/V HOLD DOWN,
G2 RECT, DYNAMIC FOCUS]

— P Board —


1-625-923-15
R836
R864
R835
C821
D807
R834
R890
R862
R801
D802
B C E
Q801
D801
P·7
C837
C836
R865
C833
R863
C832
R891
C835
R866
C838
C839
IC805
R806
C806
C803
C805
R805
C802
R860
R868
R869
R867
Q809
T801
H.DT1
C804
R804
R811
C812
Q802
R879
115V
R858
R870
R810
C810
C811
R802
R803
S-31
R853
R846
D815
C809
Q805
Q804
Q806
R812
R813
R845
C826
D813
R880
R822
R859
C834
R807
D804
C813
R814
C827
Q807
D811
R823
D810
IC802
C814
R815
REG OUT
R843
D812
R842
R819
T802
H.DT2
SONY
P
R881
C824
R854
R820
C815
R882
R844
C825
D803
C816
R818
R817
R816
R847
R848
Q810
R883
P·1
GND +15V
CONV
C817
D805
R821
R872
R849
P·4
HV
REG
R884
R809
Q803
Q811
L804
R808
C807
115V
L803
R825
IC803
R873
R850
R852
R851
R824
D874
P·5
R871
P·8
C831
C818
P·6
Q808
R855
C828
HV PROT
P·2
H.D
H.P
C808
C829
R856
R837
R833
D806
T503
DFT
C516
R520
D506
NL1
R857
R841
R839
R840
IC804
C820
R832
R517
Q501
C521
C830
D808
D809
C823
C822
C819
L502
R519
C517
R828
R838
R829
R518
R521
TP3
TP4
TP2
TP1
R827
R826
P·10
R831
P·9
R830
SG1
P·3
G2
DF
DET

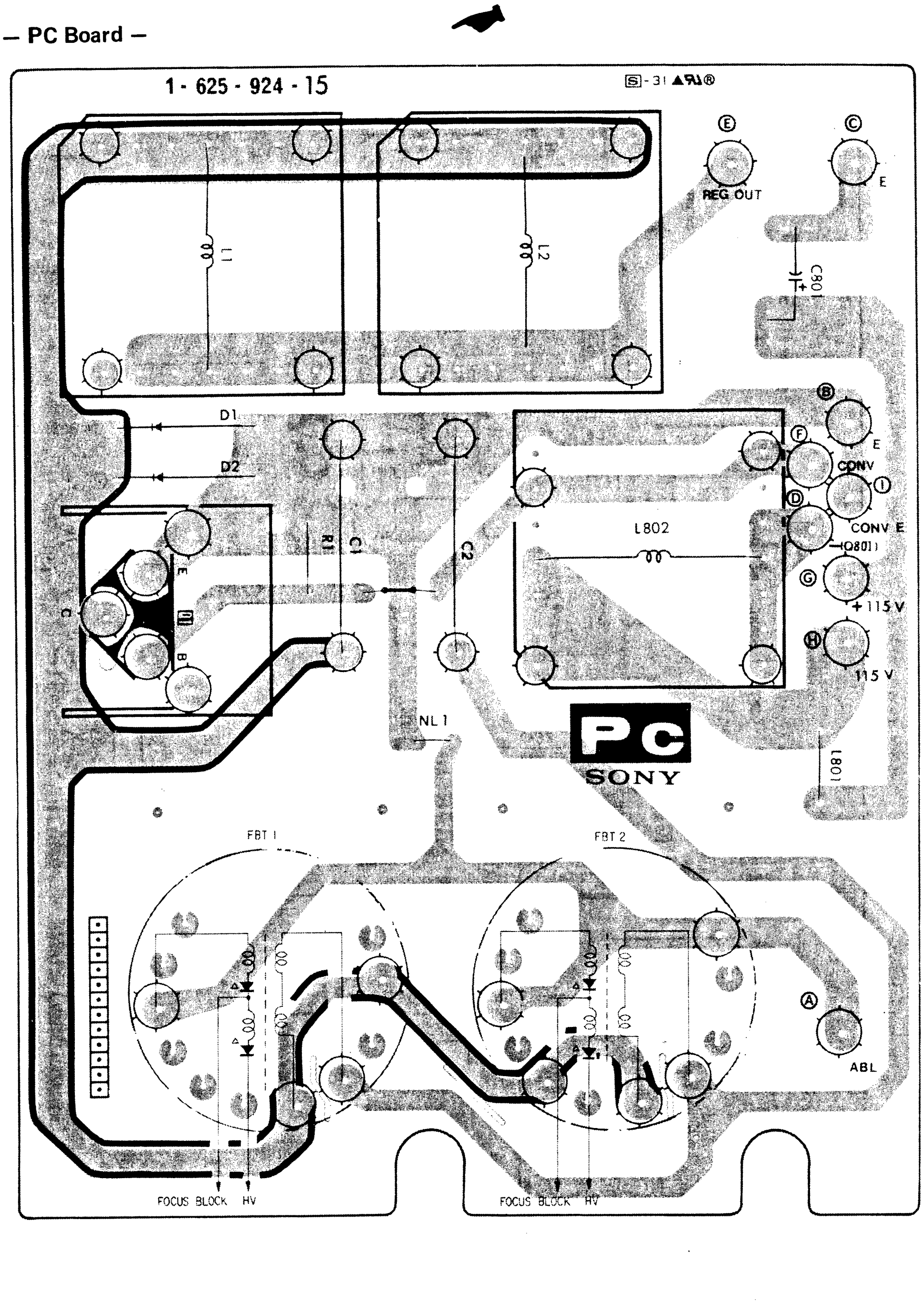


NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

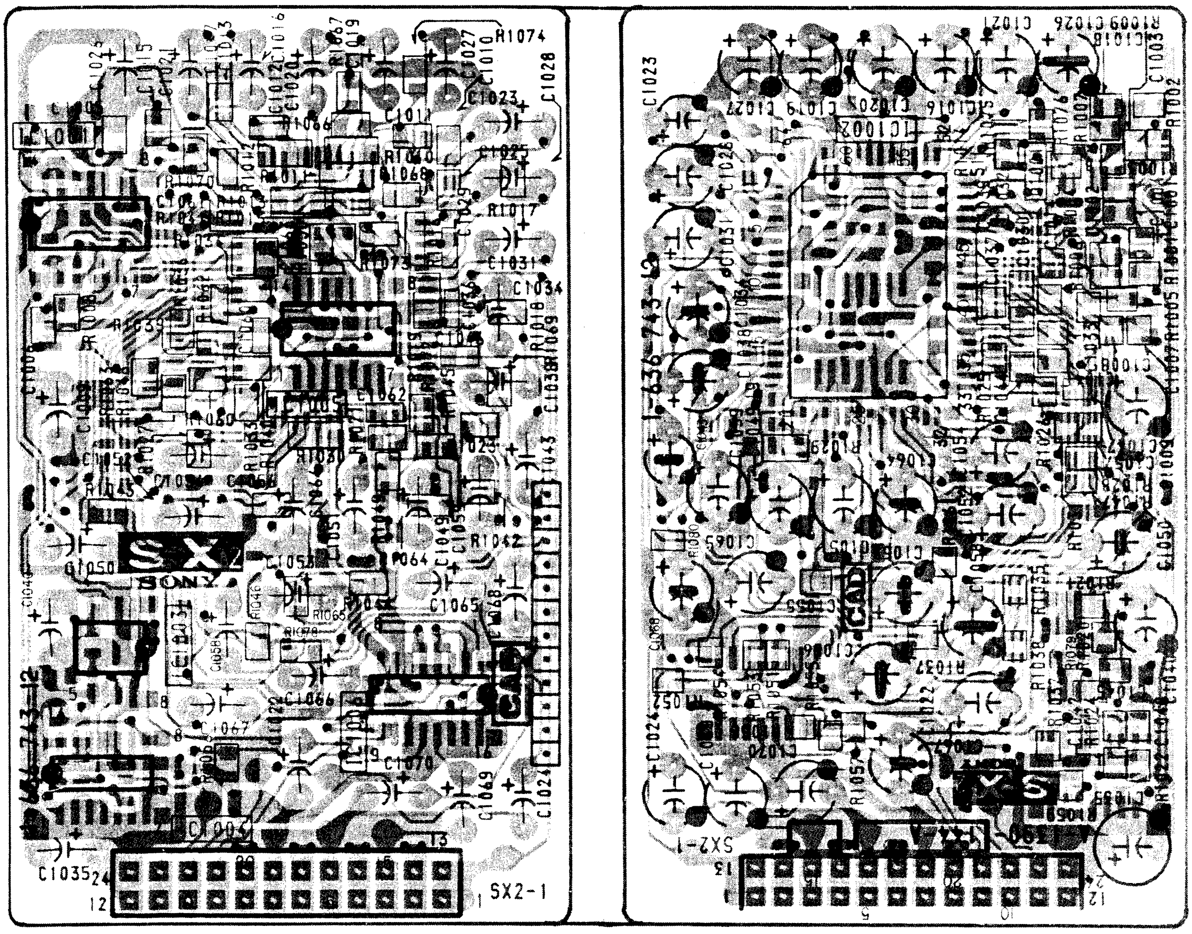
PC [HV CONV, FBT]

— PC Board —


1 - 625 - 924 - 15
S-31
E
C
REG OUT
E
C801
L1
L2
D1
D2
R1
C1
C2
E
C
B
B
F
E
CONV
I
D
CONV E
(Q801)
G
+115 V
H
115 V
L802
NL 1
Pc
SONY
L801
FBT 1
FBT 2
A
ABL
FOCUS BLOCK
HV
FOCUS BLOCK
HV

SX2 [SORROUND] SC [SECAM]

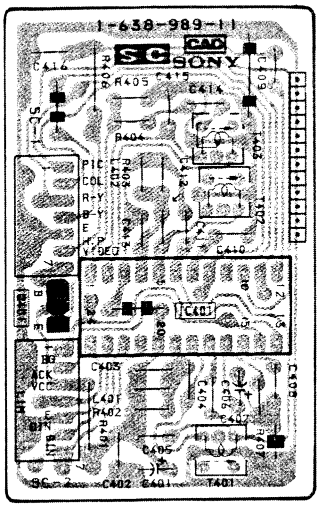
– SX2 Board –


SX
SONY
CAD
SX2-1
C1035
R1074
C1028
C1023
C1024
C1050
R1042
C1065
C1070

Note :

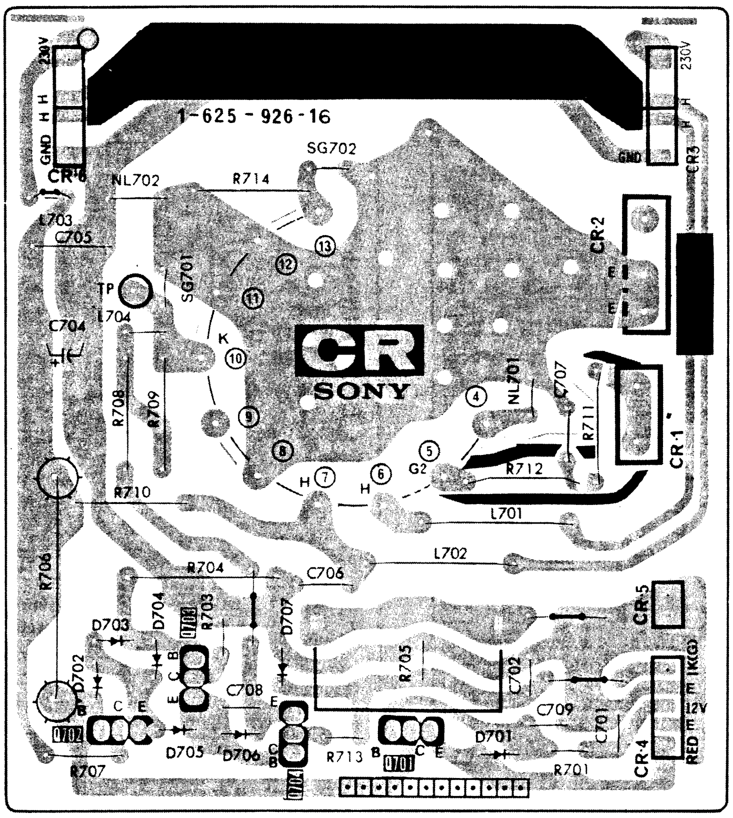
- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

– SC Board –

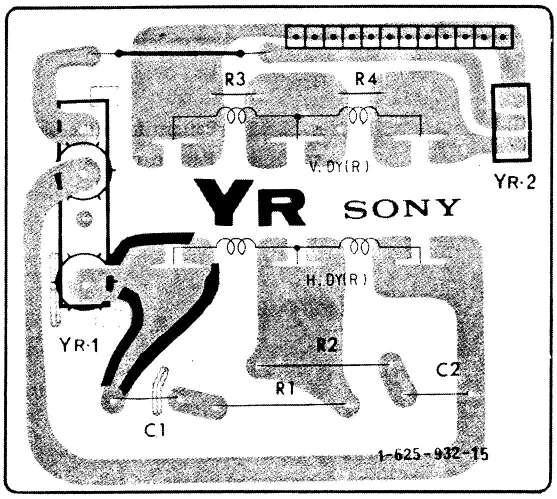

1-638-989-11
SC
CAD
SONY
C416
R405
C415
C414
R404
PIC
COL
R-Y
B-Y
VIDEO
C410
C403
C401
R402
C405
C402
C401
T401
R401
C408
SC-2

CR [R. VIDEO OUT, IK DET] YR [R. H/V DEF] XR [R. H/V SUB, VM]

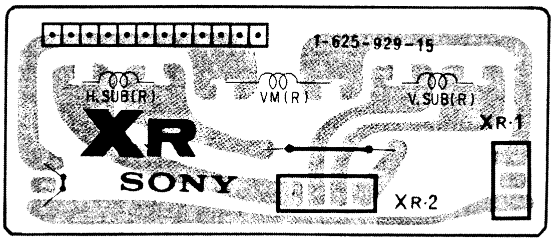
– CR Board –


1-625-926-16
230V
H
H
GND
CR-6
CR3
CR-2
CR-1
CR-5
CR-4
NL702
R714
SG702
SG701
L703
C705
TP
L704
C704
K
⑬
⑫
⑪
⑩
⑨
⑧
H ⑦
H ⑥
⑤ G2
④
CR
SONY
NL701
C707
R711
R712
L701
L702
R708
R709
R710
R706
R704
C706
D704
D707
Q703
R703
D703
D702
C708
R705
C702
C709
C701
IK(G)
12V
RED
Q702
D705
D706
Q704
R713
Q701
D701
R701
R707
B C E

– YR Board –

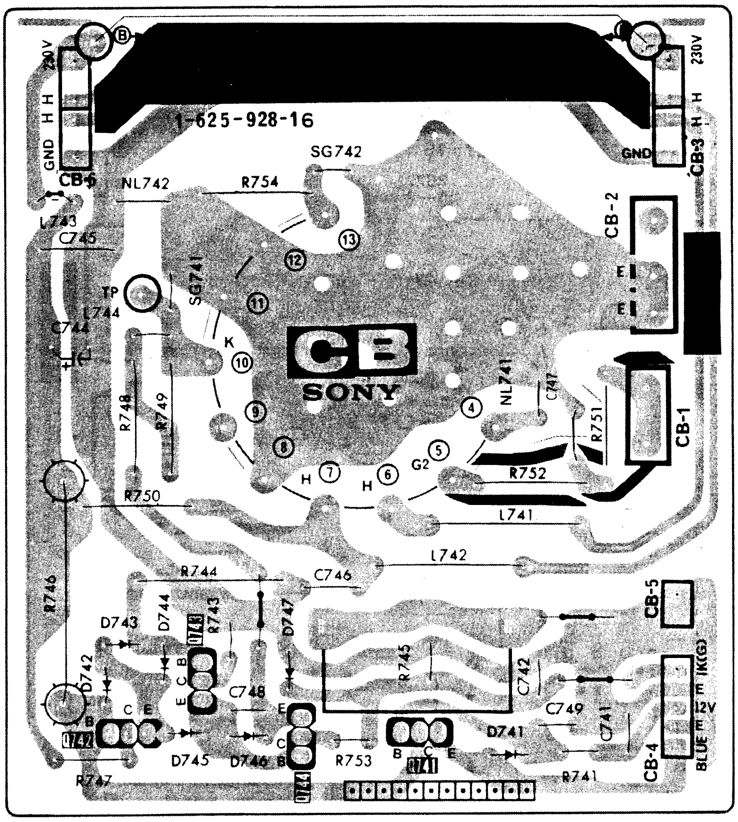

R3
R4
V. DY(R)
YR-2
YR
SONY
H. DY(R)
YR-1
R2
R1
C2
C1
1-625-932-15

– XR Board –

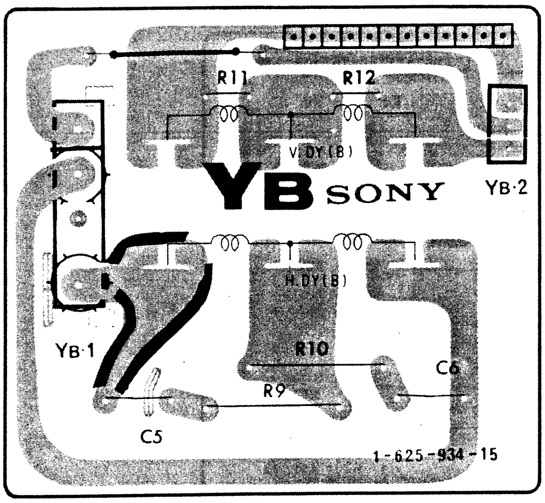

1-625-929-15
H.SUB(R)
VM(R)
V.SUB(R)
XR-1
XR
SONY
XR-2

CB [B. VIDEO OUT, IK DET] **YB** [B. H/V DEF] **XB** [B. H/V SUB, VM]

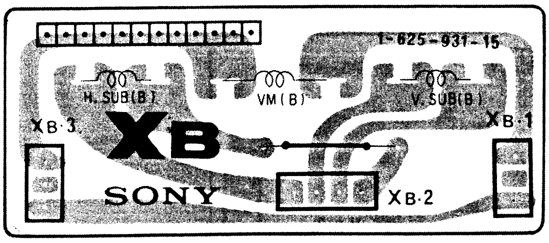
– CB Board –


1-625-928-16
230V
H H
GND
CB-6
CB-3
NL742
R754
SG742
L743
C745
TP
L744
SG741
C744
CB-2
E
CB
SONY
K
R748
R749
NL741
C747
R751
CB-1
G2
H
R752
R750
L741
L742
R744
C746
R746
D743
D744
IC743
R743
D747
R745
CB-5
D742
C742
C748
C749
IK(G)
12V
C741
D741
IC742
D745
D746
R753
IC741
R741
CB-4
BLUE
R747
IC740

– YB Board –

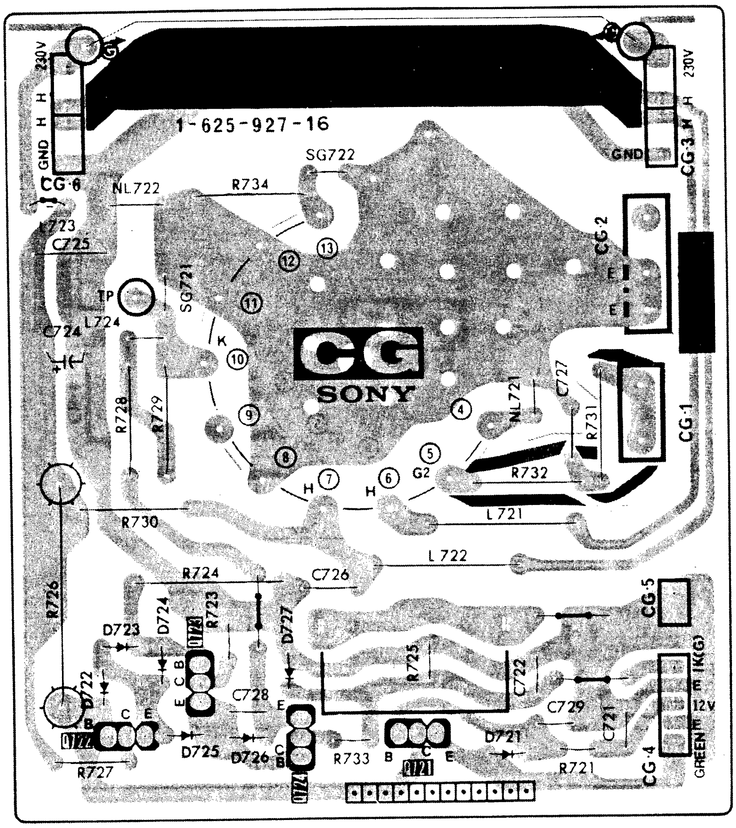

R11
R12
V.DY(B)
YB
SONY
YB·2
H.DY(B)
YB·1
R10
C6
R9
C5
1-625-934-15

– XB Board –

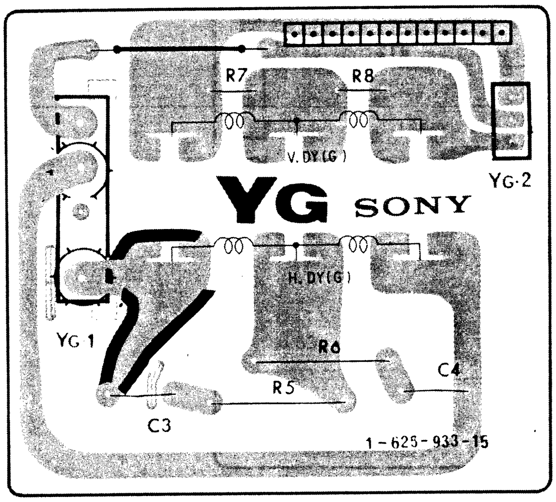

1-625-931-15
H.SUB(B)
VM(B)
V.SUB(B)
XB·3
XB
XB·1
SONY
XB·2

CG [G. VIDEO OUT, IK DET] **YG** [G. H/V DEF] **XG** [G. H/V SUB, VM]

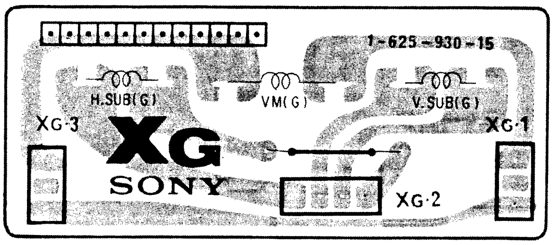
– CG Board –


1-625-927-16
230V
H
H
GND
CG-6
NL722
R734
SG722
L723
C725
TP
L724
C724
SG721
⑬
⑫
⑪
K
⑩
⑨
⑧
H ⑦
H ⑥
G2 ⑤
④
CG
SONY
NL721
C727
R731
CG-1
CG-2
E
E
E
R728
R729
R732
L721
R730
L722
R724
C726
R726
D723
D724
R723
Q723
D727
R725
C722
CG-5
D722
B
C
E
Q722
R727
E C B
C728
D725
D726
E
C
B
Q724
R733
B C E
Q721
D721
C729
C721
R721
IK(G)
E
12V
E
GREEN
CG-4
230V
H
GND
CG-3

– YG Board –

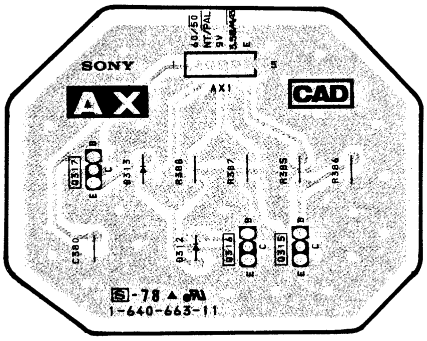

R7
R8
V. DY (G)
YG-2
YG SONY
H. DY (G)
YG 1
R6
C4
R5
C3
1-625-933-15

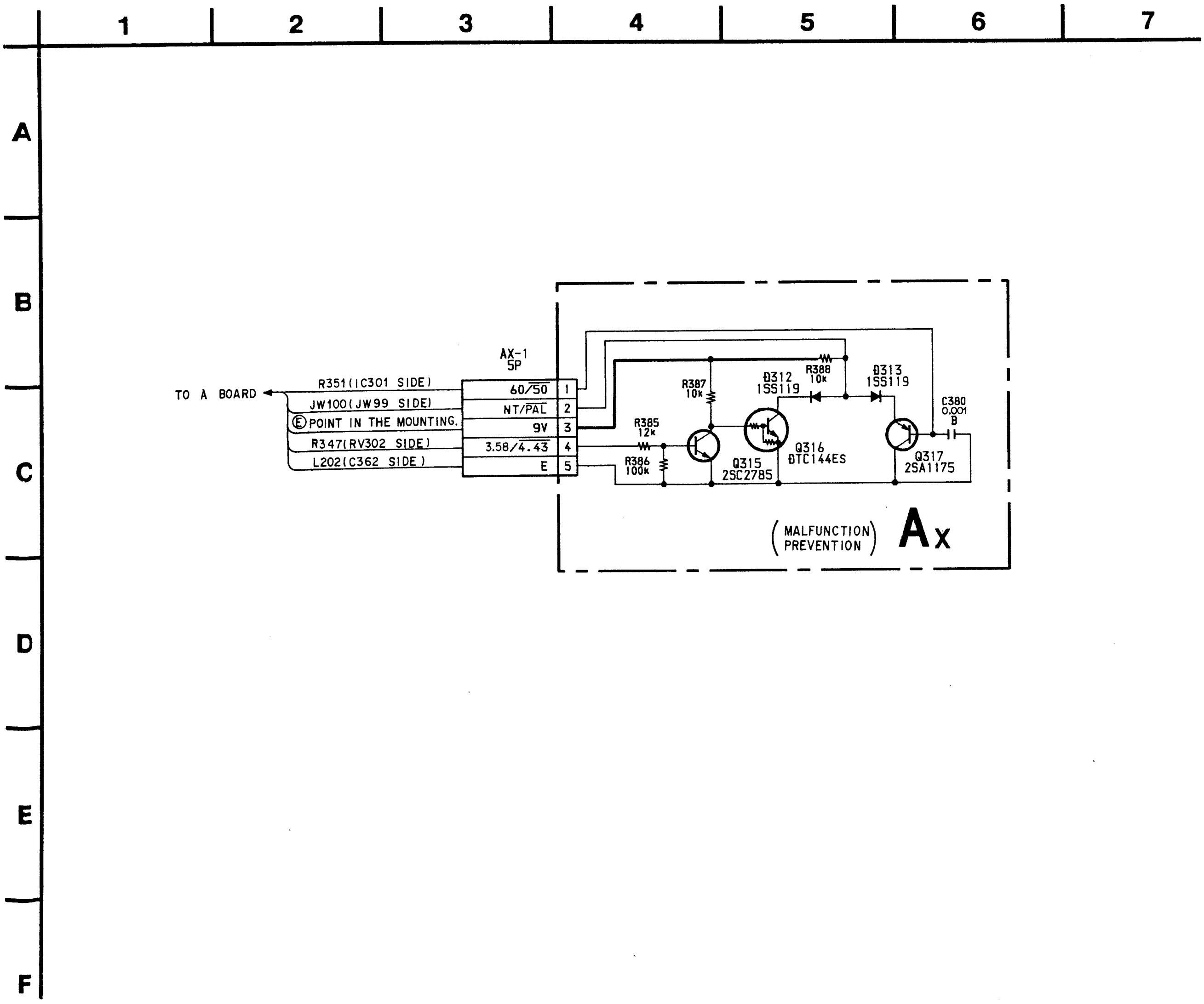
– XG Board –


1-625-930-15
H.SUB(G)
VM(G)
V.SUB(G)
XG-3
XG-1
XG
SONY
XG-2

AX [MALFUNCTION PREVENTION]

— AX Board —


SONY
AX
CAD
AX1
60/50
NT/PAL
9V
3.58/4.43
E
Q317
D313
R388
R387
R385
R386
C380
D312
Q316
Q315
B
C
E
S-78
1-640-663-11


1
2
3
4
5
6
7
A
B
C
D
E
F
TO A BOARD
R351(IC301 SIDE)
JW100(JW99 SIDE)
Ⓔ POINT IN THE MOUNTING.
R347(RV302 SIDE)
L202(C362 SIDE)
AX-1
5P
60/50
NT/PAL
9V
3.58/4.43
E
1
2
3
4
5
R387
10k
R385
12k
R386
100k
Q315
2SC2785
D312
1SS119
R388
10k
Q316
DTC144ES
D313
1SS119
C380
0.001
B
Q317
2SA1175
MALFUNCTION
PREVENTION
Ax

KPR-5300M
RM-819

9-964-681-91

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
C618 ⚠	1-162-577-51	CERAMIC 2200PF 20%	400V
C620 ⚠	1-164-625-91	CERAMIC 680PF 10%	500V
C627 ⚠	1-124-470-91	ELECT 470MF 20%	6.3V
C628 ⚠	1-102-038-91	CERAMIC 1000PF	500V
C629 ⚠	1-102-038-91	CERAMIC 1000PF	500V
C630 ⚠	1-108-810-91	MYLAR 0.033MF 5%	50V
C633 ⚠	1-102-038-91	CERAMIC 1000PF	500V
C634 ⚠	1-102-038-91	CERAMIC 1000PF	500V
C636 ⚠	1-124-563-81	ELECT 2200MF 20%	25V
C637 ⚠	1-124-468-91	ELECT 100MF 20%	6.3V
C638 ⚠	1-108-391-91	MYLAR 0.15MF 10%	100V
C639 ⚠	1-124-902-91	ELECT 0.47MF 20%	50V
C640 ⚠	1-126-600-11	ELECT (NON POLAR) 100MF 20%	160V
C641 ⚠	1-124-557-91	ELECT 1000MF 20%	25V
C642 ⚠	1-124-557-91	ELECT 1000MF 20%	25V
C643 ⚠	1-124-563-81	ELECT 2200MF 20%	25V
C644 ⚠	1-124-563-81	ELECT 2200MF 20%	25V
C645 ⚠	1-121-921-91	ELECT, SINGLE 10MF	160V
C646 ⚠	1-121-921-91	ELECT, SINGLE 10MF	160V
C647 ⚠	1-124-618-51	ELECT 2200MF 20%	35V
C648 ⚠	1-124-555-91	ELECT 1000MF 20%	16V
C649 ⚠	1-124-618-51	ELECT 2200MF 20%	35V
C650 ⚠	1-124-805-51	ELECT 100MF 20%	160V
C690 ⚠	1-130-317-51	FILM 0.068MF 5%	100V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D601 ⚠	8-719-500-69	DIODE S3V10SS	
D602 ⚠	8-719-500-69	DIODE S3V10SS	
D607 ⚠	8-719-979-60	DIODE EGP10G	
D608 ⚠	8-719-979-60	DIODE EGP10G	
D609 ⚠	8-719-979-60	DIODE EGP10G	
D610 ⚠	8-719-979-60	DIODE EGP10G	
D611 ⚠	8-719-979-60	DIODE EGP10G	
D612 ⚠	8-719-979-60	DIODE EGP10G	
D613 ⚠	8-719-975-76	DIODE SB140	
D615 ⚠	8-719-979-60	DIODE EGP10G	
D616 ⚠	8-719-908-03	DIODE GP08D	
D617 ⚠	8-719-911-19	DIODE 1SS119	
D618 ⚠	8-719-908-03	DIODE GP08D	
D619 ⚠	8-719-908-03	DIODE GP08D	
D620 ⚠	8-719-510-37	DIODE D5LC20U	
D621 ⚠	8-719-500-25	DIODE D5KC20RH	
D622 ⚠	8-719-500-26	DIODE D5KD20H	
D623 ⚠	8-719-500-67	DIODE D5KC40H	
D624 ⚠	8-719-110-02	DIODE RD7.5ES-B1	
D626 ⚠	8-719-109-85	DIODE RD5.1ES-B2	
D627 ⚠	8-719-109-85	DIODE RD5.1ES-B2	
D628 ⚠	8-719-109-85	DIODE RD5.1ES-B2	
D629 ⚠	8-719-110-50	DIODE RD18ES-B3	
D630 ⚠	8-719-109-85	DIODE RD5.1ES-B2	
D631 ⚠	8-719-911-19	DIODE 1SS119	
D632 ⚠	8-719-911-19	DIODE 1SS119	
D633 ⚠	8-719-110-50	DIODE RD18ES-B3	
D634 ⚠	8-719-911-19	DIODE 1SS119	
D635 ⚠	8-719-975-76	DIODE SB140	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
FB601 ⚠	1-410-396-51	FERRITE BEAD INDUCTOR 0.45UH	
FB602 ⚠	1-410-396-51	FERRITE BEAD INDUCTOR 0.45UH	
FB603 ⚠	1-410-396-51	FERRITE BEAD INDUCTOR 0.45UH	
FB604 ⚠	1-410-397-31	FERRITE BEAD INDUCTOR 1.10UH	
FB605 ⚠	1-410-396-51	FERRITE BEAD INDUCTOR 0.45UH	
FB606 ⚠	1-410-397-31	FERRITE BEAD INDUCTOR 1.10UH	
FB607 ⚠	1-410-397-31	FERRITE BEAD INDUCTOR 1.10UH	
FB609 ⚠	1-410-396-51	FERRITE BEAD INDUCTOR 0.45UH	
FB610 ⚠	1-410-397-31	FERRITE BEAD INDUCTOR 1.10UH	
FB611 ⚠	1-410-396-51	FERRITE BEAD INDUCTOR 0.45UH	
L601 ⚠	1-408-598-41	INDUCTOR (EL TYPE) 3.90UH	
L602 ⚠	1-408-598-41	INDUCTOR (EL TYPE) 3.90UH	
L603 ⚠	9-832-965-11	WIRE KIT (COIL, ARE-CORE)	
L604 ⚠	9-832-313-21	WIRE KIT (COIL, ARE-CORE)	
L605 ⚠	9-832-965-11	WIRE KIT (COIL, ARE-CORE)	
L606 ⚠	9-832-313-21	WIRE KIT (COIL, ARE-CORE)	
L619 ⚠	1-459-484-11	COIL (WITH CORE)	
L620 ⚠	1-412-415-22	INDUCTOR 47UH	
L621 ⚠	1-410-668-41	INDUCTOR 27UH	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
G1 ⚠	*1-508-765-11	PIN, CONNECTOR (5MM PITCH) 3P	
G2 ⚠	*1-564-512-31	PLUG, CONNECTOR 9P	
G3 ⚠	*1-564-506-51	PLUG, CONNECTOR 3P	
G4 ⚠	*1-564-509-11	PLUG, CONNECTOR 6P	
G5 ⚠	*1-564-507-51	PLUG, CONNECTOR 4P	
G6 ⚠	*1-564-506-81	PLUG, CONNECTOR 3P	
G7 ⚠	*1-508-786-11	PIN, CONNECTOR (5MM PITCH) 2P	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC601 ⚠	8-749-921-89	IC SE115N	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q601 ⚠	8-729-926-03	TRANSISTOR 2SC4581N	
⚠	8-729-926-04	TRANSISTOR 2SC4581P	
Q602 ⚠	8-729-926-03	TRANSISTOR 2SC4581N	
⚠	8-729-926-04	TRANSISTOR 2SC4581P	
Q603 ⚠	8-729-313-82	TRANSISTOR 2SD1138-C	
	*4-323-833-00	HEAT SINK, PIN OUT; Q603	
Q604 ⚠	8-729-386-12	TRANSISTOR 2SB861-C	
	*4-323-833-00	HEAT SINK, PIN OUT; Q604	
Q605 ⚠	8-729-423-35	TRANSISTOR 2SC3311A-R	
Q606 ⚠	8-729-209-15	TRANSISTOR 2SD2012	
	*4-323-833-00	HEAT SINK, PIN OUT; Q606	
Q607 ⚠	8-729-820-83	TRANSISTOR 2SA1208-T	
Q608 ⚠	8-729-423-42	TRANSISTOR 2SA1309A-R	
Q609 ⚠	8-729-255-12	TRANSISTOR 2SC2551-O	
Q610 ⚠	8-729-423-35	TRANSISTOR 2SC3311A-R	
Q611 ⚠	8-729-255-12	TRANSISTOR 2SC2551-O	
Q612 ⚠	8-729-423-35	TRANSISTOR 2SC3311A-R	
Q613 ⚠	8-729-255-12	TRANSISTOR 2SC2551-O	
Q614 ⚠	8-729-168-83	TRANSISTOR 2SC2688-K	
Q615 ⚠	8-729-255-12	TRANSISTOR 2SC2551-O	
Q616 ⚠	8-729-820-83	TRANSISTOR 2SA1208-T	
Q617 ⚠	8-729-820-83	TRANSISTOR 2SA1208-T	
Q618 ⚠	8-729-423-42	TRANSISTOR 2SA1309A-R	
Q619 ⚠	8-729-201-53	TRANSISTOR 2SA1015-GR	
Q620 ⚠	8-729-423-35	TRANSISTOR 2SC3311A-R	
Q621 ⚠	8-729-423-42	TRANSISTOR 2SA1309A-R	
Q622 ⚠	8-729-423-35	TRANSISTOR 2SC3311A-R	
Q623 ⚠	8-729-423-42	TRANSISTOR 2SA1309A-R	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R601 ⚠	1-202-846-91	SOLID 470K 10% 1/2W	

G

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R602 ⚠	1-202-846-91	SOLID	470K	10%	1/2W	
R603 ⚠	1-247-827-81	CARBON	680	5%	1/4W	
R604 ⚠	1-247-831-81	CARBON	1K	5%	1/4W	
R605 ⚠	1-247-855-81	CARBON	10K	5%	1/4W	
R606 ⚠	1-247-831-81	CARBON	1K	5%	1/4W	
R607 ⚠	1-216-388-51	METAL OXIDE	0.82	5%	3W	F
R608 ⚠	1-216-389-51	METAL OXIDE	1.0	5%	3W	F
R609 ⚠	1-216-356-51	METAL OXIDE	3.9	5%	1W	F
⚠	1-216-358-51	METAL OXIDE	5.6	5%	1W	F
R610 ⚠	1-216-356-51	METAL OXIDE	3.9	5%	1W	F
⚠	1-216-358-51	METAL OXIDE	5.6	5%	1W	F
R611 ⚠	1-215-897-51	METAL OXIDE	6.8K	5%	2W	F
R612 ⚠	1-244-803-91	CARBON	1.2	5%	1/2W	
R613 ⚠	1-216-341-51	METAL OXIDE	0.22	5%	1W	F
R614 ⚠	1-216-444-51	METAL OXIDE	82K	5%	1W	F
R615 ⚠	1-247-855-81	CARBON	10K	5%	1/4W	
R616 ⚠	1-247-855-81	CARBON	10K	5%	1/4W	
R617 ⚠	1-215-737-81	METAL	910	5%	1/4W	
R618 ⚠	1-214-913-81	METAL	100K	1%	1/2W	
R619 ⚠	1-217-248-11	WIREWOUND	0.82	10%	3W	F
R620 ⚠	1-249-405-91	CARBON	100	5%	1/4W	F
R621 ⚠	1-249-405-91	CARBON	100	5%	1/4W	F
R622 ⚠	1-246-521-85	CARBON	100K	5%	1/4W	
R623 ⚠	1-247-855-81	CARBON	10K	5%	1/4W	
R624 ⚠	1-249-382-91	CARBON	1.2	5%	1/4W	F
R625 ⚠	1-247-873-81	CARBON	56K	5%	1/4W	
R626 ⚠	1-247-839-81	CARBON	2.2K	5%	1/4W	
R627 ⚠	1-247-831-81	CARBON	1K	5%	1/4W	
R628 ⚠	1-247-804-81	CARBON	75	5%	1/4W	
R629 ⚠	1-246-521-85	CARBON	100K	5%	1/4W	
R630 ⚠	1-247-855-81	CARBON	10K	5%	1/4W	
R631 ⚠	1-247-845-81	CARBON	3.9K	5%	1/4W	
R632 ⚠	1-207-455-11	WIREWOUND	0.22	10%	1/2W	
R633 ⚠	1-247-811-81	CARBON	150	5%	1/4W	
R634 ⚠	1-247-833-81	CARBON	1.2K	5%	1/4W	
R635 ⚠	1-247-833-81	CARBON	1.2K	5%	1/4W	
R636 ⚠	1-215-436-81	METAL	4.3K	1%	1/6W	
R637 ⚠	1-215-436-81	METAL	4.3K	1%	1/6W	
R638 ⚠	1-214-779-81	METAL	120K	1%	1/4W	
R639 ⚠	1-247-833-81	CARBON	1.2K	5%	1/4W	
R640 ⚠	1-247-845-81	CARBON	3.9K	5%	1/4W	
R641 ⚠	1-247-833-81	CARBON	1.2K	5%	1/4W	
R642 ⚠	1-214-779-81	METAL	120K	1%	1/4W	
R643 ⚠	1-215-429-81	METAL	2.2K	1%	1/6W	
R644 ⚠	1-214-915-81	METAL	120K	1%	1/2W	
R645 ⚠	1-247-873-81	CARBON	56K	5%	1/4W	
R646 ⚠	1-247-879-81	CARBON	100K	5%	1/4W	
R647 ⚠	1-247-833-81	CARBON	1.2K	5%	1/4W	
R648 ⚠	1-247-833-81	CARBON	1.2K	5%	1/4W	
R649 ⚠	1-247-855-81	CARBON	10K	5%	1/4W	
⧓R690 ⚠		METAL			1/6W	
⧓R691 ⚠		METAL			1/6W	
R692 ⚠	1-247-849-81	CARBON	5.6K	5%	1/4W	
R693 ⚠	1-247-831-81	CARBON	1K	5%	1/4W	
R694 ⚠	1-247-845-81	CARBON	3.9K	5%	1/4W	
R695 ⚠	1-247-691-51	CARBON	18	5%	1/4W	F
R696 ⚠	1-247-855-81	CARBON	10K	5%	1/4W	
R697 ⚠	1-249-382-91	CARBON	1.2	5%	1/4W	F

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV601 ⚠	1-238-012-41	RES, ADJ, CARBON 1K	
RV602 ⚠	1-238-012-41	RES, ADJ, CARBON 1K	
RV603 ⚠	1-238-012-41	RES, ADJ, CARBON 1K	

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
T601 ⚠	1-424-023-12	TRANSFORMER, LINE FILTER	
T602 ⚠	1-424-020-11	PRT	
T605 ⚠	1-424-390-22	TRANSFORMER, FERRITE POWER	
T606 ⚠	1-424-023-12	TRANSFORMER, LINE FILTER	
T607 ⚠	1-450-149-11	TRANSFORMER, HEATER	

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MISCELLANEOUS

REF.NO.	PART NO.	DESCRIPTION	REMARK
⚠	1-237-582-21	RESISTOR ASSY, HIGH-VOLTAGE	
⚠	1-451-322-11	DEFLECTION YOKE (Y636PA4)	
⚠	1-452-443-13	NECK ASSY, PICTURE TUBE (NA367)	
⚠	1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
	1-544-529-11	SPEAKER	
⚠	1-574-745-11	CORD, POWER (WITH CONNECTOR)	
FBT1 ⚠	1-439-408-21	TRANSFORMER ASSY, FLYBACK (NX-2022)	
FBT2 ⚠	1-439-408-21	TRANSFORMER ASSY, FLYBACK (NX-2022)	
V901 ⚠	8-734-023-05	PICTURE TUBE (SD-208(R))	
V902 ⚠	8-734-021-05	PICTURE TUBE (SD-208(G))	
V903 ⚠	8-734-022-05	PICTURE TUBE (SD-208(B))	

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ACCESSORIES AND PACKING MATERIALS

PART NO.	DESCRIPTION	REMARK
*3-674-673-01	STOPPER (A)	
3-753-430-11	MANUAL, INSTRUCTION	
4-030-389-01	RETAINER, CASTER	
*4-032-065-01	CUSHION (UPPER) (ASSY)	
*4-032-066-01	CUSHION (LOWER) (ASSY)	
*4-032-067-01	PLATE, TOP	
*4-032-068-01	SHEET, PROTECTION	
*4-032-069-01	PANEL	
*4-032-071-01	LID	
*4-032-072-01	PLATE, BOTTOM	

REMOTE COMMANDER

PART NO.	DESCRIPTION	REMARK
1-465-882-11	COMMANDER, REMOTE (RM-819)	
2-181-754-01	COVER, BATTERY (FOR RM-819)	

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